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MICHIGAN STATISTICAL ABSTRACT

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David I. Verway
Editor

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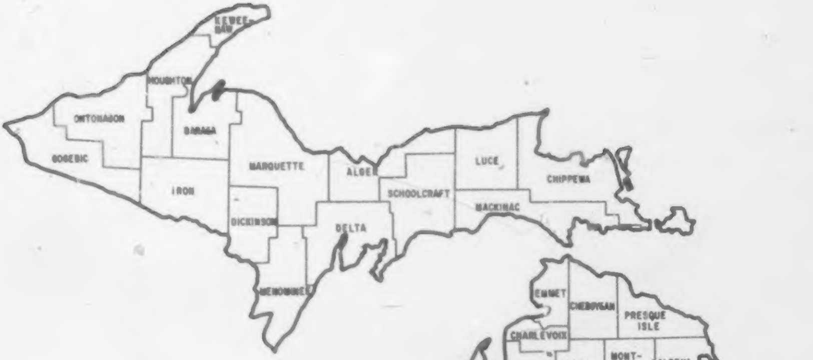
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PREFACE

Gail Guip, secretary at the Bureau of Business Research managed the production of this edition. Her contribution is gratefully acknowledged. She and Joan Havrilla typed most of the tables and the narrative. Data were collected by Elena Donadoni, Joan Havrilla, Revathi Balasubramanian, Gail Guip, and me. We all proofread.

A host of individuals in government and private organizations contributed time and material. The Bureau of Economic Analysis, Washington, D.C., is the source of income data that appear in several chapters other than chapter VI. The Office of Economic Development in Michigan's Department of Commerce arranged for the production of camera ready copy from BEA tapes. The office of Systems and Computer Services actually prepared those tables. The Computer Laboratory at Michigan State University prepared several of the tables that appear in Chapters I and II. The Michigan Employment Security Commission's Research and Statistics Division, in Detroit, was most helpful in securing many of the statistics that appear in chapter V. The Office of Vital and Health Statistics, Michigan Department of Public Health, prepared much of the material for chapter III. The Michigan Agricultural Reporting Service assembled nearly all of the information for chapter XII. The Geological Survey Division, Michigan Department of Natural Resources prepared updated material for chapter XIII. The Michigan Department of Transportation prepared tables for chapter XVII. Other cooperating state agencies include the following departments: Management and Budget, Mental Health, Social Services, Education, State, Treasury, State Police, Licensing and Regulation, and Commerce.

Those who find this Abstract useful are advised to consult the Economic Report of the Governor, which also appears annually. It offers a good description of the state's economy as well as the most recent economic forecast.

At the University of Michigan, each November, since 1952, the Department of Economics has sponsored the Annual Conference on the Economic Outlook. The data base which supports their national and Michigan forecast is substantial, and in a computer format. The Institute of Labor and Industrial Relations forecasts regional economics. A book by Harold T. Shapiro and George Fulton, A Regional Econometric Forecasting System: Major Economic Areas in Michigan, will be available from The University of Michigan Press this fall.

David I. Verway
Director
Bureau of Business Research
School of Business Administration
Wayne State University

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Map of Michigan counties

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1. POPULATION

Apportionment of the U.S. House of Representatives is on the basis of population; hence the constitutional mandate to conduct a census of the nation's inhabitants every ten years. Despite efforts on the part of organizations inside and outside of government some people do not get counted. Individuals are missed in the decennial censuses because they have no regular domicile where they can be reached, and fail to report the fact of their existence to authorities, or because they deliberately conceal their existence for one reason or another. Published Census of Population statistics for states, counties, cities, villages, and other places represent the number of people that could be accounted for on census day, plus those that were found subsequently in "Were you counted?" campaigns.

The U.S. Bureau of the Census, the agency directly responsible for counting inhabitants in this country, uses the opportunity to collect a multitude of other information as well. Statistics on sex, race, age, and household relationship are derived from answers to the relevant questions on census forms sent to every household; that is, the same forms used for the population count itself.

Census day has been set on April 1 since 1930. in 1920 it was January 1 and in 1910 it was April 15. Between 1830 and 1900, census day was June 1. For 1820, the first such tabulation from which data have been selected for reproduction in this abstract, census day was August 7.

Urban and Rural were redefined in 1950. According to the current definition the urban population comprises all persons living in (1) places of 2,500 inhabitants or more incorporated as cities, boroughs, or villages; (2) the densely populated, settled urban fringe, including both incorporated and unincorporated places, around cities of 50,000 or more; and (3) unincorporated places of 2,500 or more outside any urban fringe. According to the definition used prior to 1950, the urban population was limited to persons living in incorporated places of 2,500 inhabitants or more and in other areas classified as urban under special rules relating to population size and density. The rural population is that remaining of the total after the above definition is applied.

The Census Bureau also estimates the population of states for intercensal years. These estimates, reproduced in Table 1-2, are based upon formulae that incorporate data on known births and deaths, school enrollments, automobile registration, and other factors thought to reflect population. Other techniques are used to produce estimates of net population flows, that is, net migration statistics shown in Table 1-5.

Intercensal estimates of the population of Michigan counties for July 1, 1971 are in preparation by the Bureau of Programs and Budget of the state

Executive office and the Michigan Department of Public Health. These state agencies have worked closely with the U.S. Bureau of the Census in developing a technique for allocating the estimated state population totals among counties. The Bureau of the Census provides the July 1 population estimates for each state.

Another source of interim population estimates is the Bureau of Economic Analysis of the U.S. Department of Commerce. That agency is responsible for calculating personal and per capita personal income for states and counties. Consequently, a part of its program involves making population estimates. These may differ somewhat from the ones supplied by the state's Budget Bureau because of different data employed and variations in techniques.

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TABLE I-2. CENSAL AND INTERCENSAL ESTIMATES OF THE TOTAL RESIDENT AND CIVILIAN POPULATION OF MICHIGAN AND THE UNITED STATES: 1 JULY 1955-1981

(In thousands)

	Civilian population		Total population[a]	
Year	Michigan	United States	Michigan	United States
1955	7,270	162,967	7,285	165,069
1956	7,452	166,055	7,467	168,088
1957	7,554	169,110	7,569	171,187
1958	7,652	172,226	7,667	174,149
1959	7,750	175,277	7,767	177,135
1960	7,818	178,136	7,834	179,975
1961	7,871	181,123	7,893	182,973
1962	7,909	183,644	7,933	185,738
1963	8,034	186,448	8,058	188,438
1964	8,164	189,085	8,187	191,085
1965	8,336	191,539	8,357	193,460
1966	8,492	193,345	8,512	195,501
1967	8,610	195,181	8,630	197,374
1968	8,677	197,026	8,696	199,312
1969	8,765	199,067	8,781	201,306
1970	8,880	201,985	8,895	203,984
1971	8,957	204,866	8,972	206,827
1972	9,011	207,511	9,026	209,284
1973	9,058	209,600	9,073	211,357
1974	9,098	211,636	9,111	213,342
1975	9,095	213,788	9,109	215,465
1976	9,105	215,894	9,119	217,563
1977	9,147	218,106	9,160	219,760
1978	9,194	220,467	9,205	222,095
1979	9,242	222,969	9,252	224,567
1980	9,251	225,552	9,261	227,158
1981	9,260	227,656	9,270	229,304

SOURCE: Bureau of the Census, Current Population Reports, Series P-25, no. 72 (Washington, D.C.: 1953); no. 304 (1965); no. 460 (1971); no. 468 (1971); no. 908 (1981); and Michigan Department of Management and Budget, special release.

[a] Figures exclude members of the armed forces stationed abroad.

TABLE I-1. TOTAL URBAN AND RURAL POPULATION OF MICHIGAN AND THE UNITED STATES: CENSUS 1820-1980

Year	Urban		Rural		Total	
	Michigan	United States	Michigan	United States	Michigan	United States
	Previous urban definition					
1820	0	693,255	8,896	8,945,198	8,896	9,638,453
1830	0	1,127,247	31,639	11,738,773	31,639	12,866,020
1840	9,102	1,845,055	203,165	15,224,398	212,267	17,069,453
1850	29,025	3,543,716	368,629	19,648,160	397,654	23,191,876
1860	99,701	6,216,518	649,412	25,226,803	749,113	31,443,321
1870	237,985	9,902,361	946,074	28,656,010	1,184,059	38,558,371
1880	405,412	14,129,735	1,231,525	36,059,474	1,636,937	50,189,209
1890	730,294	22,106,265	1,363,596	40,873,501	2,093,890	62,979,766
1900	952,323	30,214,832	1,468,659	45,997,336	2,420,982	76,212,168
1910	1,327,044	42,064,001	1,483,129	50,164,495	2,810,173	92,228,496
1920	2,241,560	54,253,282	1,426,852	51,768,255	3,668,412	106,021,537
1930	3,302,075	69,160,599	1,540,250	54,042,025	4,842,325	123,202,624
1940	3,454,867	74,705,338	1,801,239	57,459,231	5,256,106	132,164,569
1950	4,166,165	90,128,194	2,205,601	61,197,604	6,371,766	151,325,798
1960	5,085,882	113,056,353	2,737,312	66,266,822	7,823,194	179,323,175
	Current urban definition					
1950	4,503,084	96,846,817	1,868,682	54,478,981	6,371,766	151,325,798
1960	5,739,132	125,268,750	2,084,062	54,054,425	7,823,194	179,323,175
1970	6,566,483	149,324,930	2,308,600	53,886,996	8,881,826	203,211,926
1980	6,551,551	166,965,380	2,710,527	59,539,445	9,262,078	226,504,825

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, Number of Inhabitants, Michigan (Washington, D.C.: 1982), PC80-1-A24; and special release.

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Addison (V)	Lenawee	639	0	0	5	11	15	655
Adrian (C)	Lenawee	19,313	564	50	98	1,161	2,593	21,185
Ahmeek (V)	Keweenaw	207	3	0	0	0	0	210
Akron (V)	Tuscola	529	0	5	0	4	23	538
Alanson (V)	Emmet	502	0	2	2	2	2	508
Albion (C)	Calhoun	7,466	3,175	32	26	360	545	11,059
Algonac (C)	St. Clair	4,339	1	57	3	12	35	4,412
Allegan (C)	Allegan	4,358	164	13	12	29	53	4,576
Allen Park (C)	Wayne	33,545	109	72	211	259	766	34,196
Allen (V)	Hillsdale	266	0	0	0	0	0	266
Alma (C)	Gratiot	9,344	18	35	25	230	436	9,652
Almont (V)	Lapeer	1,834	0	1	15	7	26	1,857
Alpena (C)	Alpena	12,133	9	16	20	36	24	12,214
Alpha (V)	Iron	228	0	1	0	0	4	229
Ann Arbor (C)	Washtenaw	91,875	10,069	270	3,894	1,858	2,251	107,966
Applegate (V)	Sanilac	247	0	0	0	10	20	257
Armada (V)	Macomb	1,379	0	2	0	11	32	1,392
Ashley (V)	Gratiot	563	0	4	0	3	12	570
Athens (V)	Calhoun	952	1	6	0	1	11	960
Au Gres (C)	Arenac	749	0	15	4	0	3	768
Auburn (C)	Bay	1,890	0	4	6	21	28	1,921
Augusta (V)	Kalamazoo	903	0	6	4	0	9	913
Bad Axe (C)	Huron	3,152	0	4	10	18	44	3,184
Baldwin (V)	Lake	485	173	5	0	11	10	674
Bancroft (V)	Shiawassee	611	0	2	1	4	1	618

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Bangor (C)	Van Buren	1,717	214	15	0	55	101	2,001
Baraga (V)	Baraga	931	0	123	0	1	5	1,055
Baroda (V)	Berrien	625	0	2	0	0	3	627
Barryton (V)	Mecosta	416	0	1	2	3	0	422
Barton Hills (V)	Washtenaw	343	0	0	12	2	6	357
Battle Creek (C)	Calhoun	26,794	8,143	201	120	466	679	35,724
Bay City (C)	Bay	39,383	745	236	69	1,160	1,948	41,593
Bear Lake (V)	Manistee	384	0	0	3	1	10	388
Beaverton (C)	Gladwin	1,021	0	3	0	1	8	1,025
Belding (C)	Ionia	5,566	8	22	3	35	89	5,934
Bellaire (V)	Antrim	1,060	0	1	2	0	0	1,063
Belleville (C)	Wayne	3,291	48	14	7	6	21	3,366
Bellevue (V)	Eaton	1,284	1	1	1	2	1	1,289
Benton Harbor (C)	Berrien	1,938	12,693	38	7	31	139	14,707
Benzonia (V)	Benzie	457	1	1	4	3	1	466
Berkley (C)	Oakland	18,415	13	66	83	60	169	18,637
Berrien Springs (V)	Berrien	1,909	63	10	19	41	76	2,042
Bessemer (C)	Gogebic	2,518	0	31	2	2	1	2,553
Beulah (V)	Benzie	433	19	1	0	1	5	454
Beverly Hills (V)	Oakland	11,366	46	7	158	21	77	11,598
Big Rapids (C)	Mecosta	13,661	513	58	79	50	83	14,361
Bingham Farms (V)	Oakland	526	3	0	0	0	0	529
Birch Run Village	Saginaw	1,181	0	5	5	5	9	1,196
Birmingham (C)	Oakland	21,383	44	16	195	51	174	21,689
Blissfield (V)	Lenawee	3,027	1	6	2	71	101	3,107

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Bloomfield Hills (C)	Oakland	3,783	27	4	129	42	97	3,985
Bloomingdale (V)	Van Buren	531	3	3	0	0	4	537
Boyne City (C)	Charlevoix	3,305	4	33	3	3	13	3,348
Boyne Falls (V)	Charlevoix	371	0	6	1	0	0	378
Breckenridge	Gratiot	1,453	0	3	0	39	48	1,495
Breedsville (V)	Van Buren	210	26	7	0	1	7	244
Bridgman (C)	Berrien	2,200	6	1	7	21	20	2,235
Brighton (C)	Livingston	4,152	5	48	40	23	51	4,268
Britton (V)	Lenawee	684	0	1	1	7	14	693
Bronson (C)	Branch	2,261	3	1	2	4	38	2,271
Brooklyn (V)	Jackson	1,104	0	2	3	1	6	1,110
Brown City (C)	Sanilac	1,149	0	1	0	13	23	1,163
Buchanan (C)	Berrien	4,555	526	36	11	14	31	5,142
Buckley (V)	Wexford	353	2	1	0	1	1	357
Burlington (V)	Calhoun	365	0	2	0	0	4	367
Burr Oak (V)	St. Joseph	848	0	0	0	5	7	853
Burton (C)	Genesee	29,201	338	168	42	227	414	29,976
Byron (V)	Shiawassee	678	0	8	2	1	2	689
Cadillac (C)	Wexford	10,119	6	40	15	19	44	10,199
Caledonia (V)	Kent	719	0	1	1	1	3	722
Calumet (V)	Houghton	1,004	0	5	3	1	2	1,013
Camden (V)	Hillsdale	420	0	0	0	0	0	420
Capac (V)	St. Clair	1,321	0	0	4	52	98	1,377
Carleton (V)	Monroe	2,765	0	5	5	11	36	2,786
Caro (V)	Tuscola	4,143	13	15	22	124	172	4,317

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Carson City (C)	Montacalm	1,216	1	4	1	7	32	1,229
Carsonville (V)	Sanilac	605	0	0	0	17	23	622
Caseville (V)	Huron	844	0	5	0	2	7	851
Casnovia (V)	Kent & Muskegon	347	0	1	0	0	6	348
Caspian (C)	Iron	1,023	0	1	13	1	0	1,038
Cass City (V)	Tuscola	2,225	1	3	17	12	31	2,258
Cassopolis (V)	Cass	1,114	799	2	9	9	12	1,933
Cedar Springs (C)	Kent	2,557	11	21	6	20	33	2,615
Cement City (V)	Jackson & Lenawee	536	0	1	2	0	2	539
Center Line (C)	Macomb	9,229	5	18	32	9	60	9,293
Central Lake (V)	Antrim	885	4	5	0	1	7	895
Centreville (V)	St. Joseph	1,168	8	4	19	3	7	1,202
Charlevoix (C)	Charlevoix	3,205	4	76	6	5	13	3,296
Charlotte (C)	Eaton	8,069	20	19	61	82	185	8,251
Chatham (V)	Alger	308	0	7	0	0	0	315
Cheybogan (C)	Cheboygan	4,986	6	82	22	10	30	5,106
Chelsea (V)	Washtenaw	3,770	15	14	7	10	18	3,816
Chesaning (V)	Saginaw	2,632	1	6	1	16	49	2,656
Clare (C)	Clare	3,270	4	19	3	4	9	3,300
Clarkston (V)	Oakland	967	0	1	0	0	1	968
Clarksville (V)	Ionia	345	0	0	0	3	8	348
Clawson (C)	Oakland	14,942	11	44	71	35	101	15,103
Clayton (V)	Lenawee	386	0	0	1	9	9	396
Clifford (V)	Lapeer	404	0	0	0	2	4	406
Climax (V)	Kalamazoo	616	0	0	2	1	14	619

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Clinton (V)	Lenawee	2,326	0	1	6	9	13	2,342
Clio (C)	Genesee	2,642	2	7	7	11	42	2,669
Coldwater (C)	Branch	9,347	11	23	37	43	59	9,461
Coleman (C)	Midland	1,401	5	13	1	9	9	1,429
Coloma (C)	Berrien	1,814	3	5	7	4	14	1,833
Colon (V)	St. Joseph	1,170	0	10	4	6	17	1,190
Columbiaville (V)	Lapeer	944	0	2	4	3	12	953
Concord (V)	Jackson	898	1	0	1	0	5	900
Constantine (V)	St. Joseph	1,675	1	2	0	2	8	1,680
Coopersville (C)	Ottawa	2,840	19	13	9	8	20	2,889
Copemish (V)	Manistee	269	0	18	0	0	2	287
Copper City (V)	Houghton	244	0	0	0	0	0	244
Corunna (C)	Shiawassee	3,170	4	12	3	17	55	3,206
Croswell (C)	Sanilac	1,884	1	4	0	184	225	2,073
Crystal Falls (C)	Iron	1,955	1	3	2	4	4	1,965
Custer (V)	Mason	337	0	1	2	1	1	341
Daggett (V)	Menominee	274	0	0	0	0	3	274
Dansville (V)	Ingham	467	4	2	1	5	13	479
Davison (C)	Genesee	6,003	21	13	17	33	59	6,087
De Tour (V)	Chippewa	394	0	72	0	0	6	466
De Witt (C)	Clinton	3,078	13	25	8	41	77	3,165
Dearborn (C)	Wayne	89,167	83	173	398	839	1,642	90,660
Dearborn Heights (C)	Wayne	66,462	63	226	518	437	1,215	67,706
Decatur (V)	Van Buren	1,728	119	34	5	29	61	1,915
Deckerville (V)	Sanilac	850	0	0	2	35	77	887

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Deerfield (V)	Lenawee	944	3	1	3	6	7	957
Detroit (C)	Wayne	413,730	758,939	3,420	6,621	20,629	28,970	1,203,339
Dexter (V)	Washtenaw	1,513	0	1	9	1	12	1,524
Dimondale (V)	Eaton	989	0	3	8	8	24	1,008
Douglas (V)	Allegan	909	5	0	7	27	38	948
Dowagiac (C)	Cass	5,161	983	78	29	56	71	6,307
Dryden (V)	Lapeer	638	0	4	0	8	9	650
Dundee (V)	Monroe	2,568	1	2	0	4	15	2,575
Durand (C)	Shiawassee	4,160	0	32	12	37	72	4,241
Eagle (V)	Clinton	154	1	0	0	0	0	155
East Detroit (V)	Macomb	37,926	26	90	136	102	304	38,280
East Grand Rapids (C)	Kent	10,746	74	10	63	21	53	10,914
East Jordan (C)	Charlevoix	2,119	3	61	1	1	1	2,185
East Lake (V)	Dickinson	505	3	0	2	4	13	514
East Lansing (C)	Ingham	46,413	2,682	118	1,151	1,028	926	51,392
East Tawas (C)	Iosco	2,572	0	4	8	0	3	2,584
Eaton Rapids (C)	Eaton	4,438	4	12	24	32	83	4,510
Eau Claire (V)	Berrien	559	5	4	3	2	4	573
Ecorse (C)	Wayne	8,267	5,676	56	30	418	915	14,447
Edmore (V)	Montcalm	1,128	2	1	5	40	47	1,176
Edwardsburg (V)	Cass	1,126	1	3	5	0	5	1,135
Elberta (V)	Benzie	546	0	10	0	0	6	556
Elk Rapids (V)	Antrim	1,483	0	13	3	5	19	1,504
Elkton (V)	Huron	947	0	0	0	6	26	953
Ellsworth (V)	Antrim	435	0	0	1	0	3	436

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPRATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Elsie (V)	Clinton	1,016	0	2	0	4	11	1,022
Emmett (V)	St. Clair	284	0	1	0	0	1	285
Empire (V)	Leelanau	340	0	[illegible]	0	0	1	340
Escanaba (C)	Delta	14,145	5	142	29	34	67	14,355
Essexville (C)	Bay	4,285	20	30	12	31	55	4,378
Estral Beach (V)	Monroe	462	0	1	0	0	0	463
Evart (C)	Osceola	1,934	6	3	2	0	7	1,945
Fairgrove (V)	Tuscola	677	0	0	1	13	27	691
Farmington (C)	Orkland	10,919	12	7	66	18	69	11,022
Farmington Hills (C)	Oakland	56,457	310	85	992	212	495	58,056
Farwell (V)	Clare	803	0	0	0	1	6	804
Fennville (C)	Allegan	763	14	10	1	146	256	934
Fenton (C)	Genessee	8,022	13	30	17	16	41	8,098
Ferndale (C)	Oakland	25,678	117	126	139	167	272	26,227
Ferrysburg (C)	Ottawa	2,417	0	14	6	3	5	2,440
Fife Lake (V)	Grand Traverse	399	0	3	0	0	0	402
Flat Rock (C)	Wayne	6,698	82	15	29	29	86	6,853
Flint (C)	Genesee	89,647	66,124	971	633	2,236	3,974	159,611
Flushing (C)	Genesee	8,517	0	23	47	37	61	8,624
Forestville (V)	Sanilac	158	0	1	0	0	4	159
Fountain (V)	Mason	192	0	3	0	0	0	195
Fowler (V)	Clinton	1,017	0	4	0	0	4	1,021
Fowlerville (V)	Livingston	2,241	0	23	3	22	34	2,289
Frankenmuth (C)	Saginaw	3,725	0	1	4	23	16	3,753
Frankfort (C)	Benzie	1,559	2	27	3	12	15	1,603

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Franklin (V)	Oakland	2,816	18	0	20	10	29	2,864
Fraser (C)	Macomb	14,381	15	45	74	45	138	14,560
Free Soil (V)	Mason	208	3	0	0	1	2	212
Freeport (V)	Barry	475	0	4	0	0	11	479
Fremont (V)	Newaygo	3,655	0	3	7	7	7	3,672
Fruitport (V)	Muskegon	1,136	0	4	0	3	14	1,143
Gaastra (C)	Iron	403	0	1	0	0	0	404
Gagetown (V)	Tuscola	426	0	0	0	2	32	428
Gaines (V)	Genesee	423	0	13	2	2	2	440
Galesburg (C)	Kalamazoo	1,790	4	8	10	10	20	1,822
Galien (V)	Berrien	690	1	1	0	0	0	692
Garden City (C)	Wayne	35,269	24	101	121	125	446	35,640
Garden (V)	Delta	273	0	9	0	14	0	296
Gaylord (C)	Otsego	2,996	1	3	11	0	10	3,011
Gibraltar (C)	Wayne	4,413	7	18	5	15	40	4,458
Gladstone (C)	Delta	4,471	2	43	6	11	9	4,533
Gladwin (C)	Gladwin	2,465	1	5	5	3	14	2,479
Gobles (C)	Van Buren	807	4	5	0	0	2	816
Goodrich (V)	Genesee	792	0	3	0	0	7	795
Grand Beach (V)	Berrien	226	0	0	0	1	0	227
Grand Blanc (C)	Genesee	6,681	69	9	80	9	31	6,848
Grand Haven (C)	Ottawa	11,580	39	70	35	39	102	11,763
Grand Ledge (C)	Eaton	6,773	12	29	58	48	90	6,920
Grand Rapids (C)	Kent	147,171	28,602	1,260	1,130	3,680	5,751	181,843
Grandville (C)	Kent	12,230	54	20	75	33	105	12,412

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Grant (C)	Newaygo	659	0	1	4	19	24	683
Grass Lake (V)	Jackson	949	0	13	0	0	0	962
Grayling (C)	Crawford	1,790	0	1	0	1	7	1,792
Greenville (C)	Montcalm	7,893	15	13	43	55	103	8,019
Grosse Pointe (C)	Wayne	5,835	11	3	48	4	43	5,901
Grosse Pointe Farms (C)	Wayne	10,425	19	8	89	10	81	10,551
Grosse Pointe Park (C)	Wayne	13,415	30	30	116	48	166	13,639
Grosse Pointe Shores (V)	Wayne	3,072	8	1	40	1	37	3,122
Grosse Pointe Woods (C)	Wayne	18,674	21	5	153	33	118	18,886
Hamtramck (C)	Wayne	17,512	2,751	56	138	843	235	21,300
Hancock (C)	Houghton	5,002	49	13	21	37	22	5,122
Hanover (V)	Jackson	489	0	1	0	0	1	490
Harbor Beach (C)	Huron	1,984	0	5	0	11	19	2,000
Harbor Springs (C)	Emmett	1,440	2	117	4	4	2	1,567
Harper Woods (C)	Wayne	16,199	11	20	102	29	69	16,361
Harrietta (V)	Wexford	129	0	10	0	0	0	139
Harrison (C)	Clare	1,672	0	20	0	8	8	1,700
Harrisville (C)	Alcona	549	0	6	3	1	2	559
Hart (C)	Oceana	1,803	3	27	7	48	95	1,888
Hartford (C)	Van Buren	2,365	7	61	0	60	95	2,493
Hastings (C)	Barry	6,309	5	51	31	22	56	6,418
Hazel Park (C)	Oakland	20,495	27	126	106	160	294	20,914
Hersey (V)	Osceola	363	0	1	0	0	7	364
Hesperia (V)	Newaygo & Oceana	869	0	2	2	3	6	876
Highland Park (C)	Wayne	3,977	23,443	86	141	262	232	27,909

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Hillman (V)	Montmorency	373	0	0	0	0	1	373
Hillsdale (C)	Hillsdale	7,286	35	14	48	49	102	7,432
Holland (C)	Allegan & Ottawa	24,210	147	67	277	1,580	2,911	26,281
Holly (V)	Oakland	4,824	7	9	2	32	82	4,874
Homer (V)	Calhoun	1,777	0	2	0	12	21	1,791
Honor (V)	Benzie	270	0	11	0	0	0	281
Hopkins (V)	Allegan	526	0	9	1	0	1	536
Houghton (C)	Houghton	7,229	52	14	158	59	54	7,512
Howard City (V)	Montcalm	1,111	0	3	1	3	4	1,118
Howell (C)	Livingston	6,870	4	27	46	29	41	6,976
Hubbardston (V)	Clinton & Ionia	410	0	4	1	6	0	421
Hudson (C)	Leenawee	2,522	0	0	6	17	29	2,545
Hudsonville (C)	Ottawa	4,801	3	6	29	5	19	4,844
Huntington Woods (C)	Oakland	6,836	29	3	49	20	40	6,937
Imlay City (C)	Lapeer	2,295	8	2	18	172	250	2,495
Inkster (C)	Wayne	14,789	19,994	82	164	161	412	35,190
Ionia (C)	Ionia	5,806	6	21	33	54	170	5,920
Iron Mountain (C)	Dickinson	8,294	2	13	13	19	6	8,341
Iron River (C)	Iron	2,394	1	25	6	0	3	2,426
Ironwood (C)	Gogebic	7,699	0	32	5	5	27	7,741
Ishpeming (C)	Marquette	7,490	5	27	14	2	19	7,538
Ithaca (C)	Gratiot	2,834	0	19	2	95	135	2,950
Jackson (C)	Jackson	32,763	6,133	209	125	509	807	39,739
Jonesville (V)	Hillsdale	2,148	11	9	2	2	12	2,172
Kalamazoo (C)	Kalamazoo	64,893	12,438	333	623	1,435	1,487	79,722

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Kaleva (V)	Manistee	433	0	2	4	6	9	445
Kalkaska (V)	Kalkaska	1,630	1	11	12	0	10	1,654
Keego Harbor (C)	Oakland	2,975	6	24	38	40	78	3,083
Kent City (V)	Kent	843	0	0	0	17	31	860
Kentwood (C)	Kent	28,707	1,129	108	280	214	474	30,438
Kinde (V)	Huron	593	0	1	3	3	0	600
Kingsford (C)	Dickinson	5,269	5	8	5	3	14	5,290
Kingsley (V)	Grand Traverse	658	0	5	0	1	2	664
Kingston (V)	Tuscola	416	0	1	0	0	0	417
L'anse (V)	Baraga	2,354	0	140	3	3	19	2,500
Laingsburg (C)	Shiawassee	1,141	0	0	4	0	4	1,145
Lake Angelus (V)	Oakland	392	0	5	0	0	0	397
Lake Ann (V)	Benzie	230	0	0	0	5	6	235
Lake City (C)	Missaukee	835	0	2	0	6	4	843
Lake Linden (V)	Houghton	1,175	0	3	0	3	1	1,181
Lake Odessa (V)	Ionia	2,055	0	5	5	106	197	2,171
Lake Orion (V)	Oakland	2,869	0	12	7	19	28	2,907
Lakeview (V)	Montcalm	1,092	1	0	8	38	59	1,139
Lakewood Club (V)	Muskegon	656	21	12	0	6	7	695
Lansing (C)	Clinton-Eaton-Ingham	104,880	18,179	1,088	802	5,465	8,237	130,414
Lapeer (C)	Lapeer	5,990	26	31	31	120	104	6,198
Lathrup Village (C)	Oakland	4.411	182	1	23	22	56	4,639
Laurium (V)	Houghton	2,669	0	3	5	1	7	2,678
Lawrence (V)	Van Buren	862	25	6	3	7	17	903
Lawton (V)	Van Buren	1,504	14	8	0	32	73	1,558
Le Roy (V)	Osceola	292	0	0	0	1	0	293
Lennon (V)	Genessee & Shiawassee	599	0	1	0	0	3	600
Leonard (V)	Oakland	421	0	2	0	0	4	423
Leslie (C)	Ingham	2,075	9	17	3	6	24	2,110
Lexington (V)	Sanilac	761	0	0	0	4	10	765

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Lincoln Park (C)	Wayne	44,210	226	147	170	352	1,154	45,105
Lincoln (V)	Alcona	361	0	0	0	0	0	361
Linden (V)	Genesee	2,154	0	6	4	10	22	2,174
Litchfield (C)	Hillsdale	1,349	0	1	0	3	12	1,353
Livonia (C)	Wayne	103,215	108	169	887	435	980	104,814
Lowell (C)	Kent	3,660	9	15	4	19	48	3,707
Ludington (C)	Mason	8,715	47	65	59	51	134	8,937
Luna Pier (C)	Monroe	1,427	0	8	0	8	24	1,443
Luther (V)	Lake	397	2	14	0	1	12	414
Lyons (V)	Ionia	702	0	2	1	3	10	708
Mackinac Island (C)	Mackinac	373	1	105	0	0	0	479
Mackinaw City (V)	Cheboygan-Emmet	783	1	35	1	0	3	820
Madison Heights (C)	Oakland	34,284	240	156	540	155	369	35,375
Mancelona (V)	Antrim	1,419	1	7	4	1	7	1,432
Manchester (V)	Washtenaw	1,677	0	5	3	1	8	1,686
Manistee (C)	Mainstee	7,447	17	46	24	32	96	7,566
Manistique (C)	Schoolcraft	3,818	1	132	8	3	9	3,962
Manton (C)	Wexford	1,205	0	1	6	0	2	1,212
Maple Rapids (V)	Clinton	680	0	3	0	0	1	683
Marcellus (V)	Cass	1,126	2	2	3	1	4	1,134
Marine City (C)	St. Clair	4,387	1	6	7	13	20	4,414
Marion (V)	Osceola	805	0	10	0	1	2	816
Marlette (V)	Sanilac	1,741	0	2	8	10	29	1,761
Marquette (C)	Marquette	22,162	663	249	89	125	157	23,288
Marshall (C)	Calhoun	7,014	34	23	21	109	222	7,201
Martin (V)	Allegan	447	0	0	0	0	3	447
Marysville (C)	St. Clair	7,288	0	29	18	10	55	7,345
Mason (C)	Ingham	5,787	104	22	57	49	99	6,019
Mattawan (V)	Van Buren	2,061	26	25	5	26	49	2,143
Maybee (V)	Monroe	490	0	0	0	0	6	490

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Mayville (V)	Tuscola	951	0	0	1	6	15	958
McBain (C)	Missaukee	508	0	0	0	11	0	519
McBride (V)	Montcalm	252	0	0	0	0	0	252
Mecosta (V)	Mecosta	392	25	10	0	1	8	428
Melvin (V)	Sanilac	171	0	0	0	0	0	171
Melvindale (C)	Wayne	11,907	44	99	144	128	486	12,322
Memphis (C)	Macomb-St. Clair	1,154	12	2	2	1	14	1,171
Mendon (V)	St. Joseph	927	7	6	0	11	1	951
Menominee (C)	Menominee	10,043	2	35	17	2	25	10,099
Merrill (V)	Saginaw	816	0	6	0	29	37	851
Mesick (V)	Wexford	366	0	4	0	4	9	374
Metamora (V)	Lapeer	551	0	0	0	1	0	552
Michiana (V)	Berrien	328	1	3	1	0	5	333
Middleville (V)	Barry	1,774	5	4	5	9	24	1,797
Midland (C)	Bay-Midland	35,855	519	64	535	277	528	37,250
Milan (C)	Monroe-Washtenaw	4,046	43	14	17	62	123	4,182
Milford (V)	Oakland	4,994	5	6	6	30	38	5,041
Millersburg (V)	Presque Isle	228	0	3	0	0	0	231
Millington (V)	Tuscola	1,221	1	3	11	1	10	1,237
Minden City (V)	Sanilac	284	0	0	0	0	0	284
Mineral Hills (V)	Iron	254	0	3	0	0	0	257
Monroe (C)	Monroe	22,283	1,002	51	100	95	269	23,531
Montague (C)	Muskegon	2,300	1	12	6	13	40	2,332
Montgomery (V)	Hillsdale	408	0	0	0	0	2	408
Montrose (V)	Genesee	1,676	0	8	3	19	32	1,706
Morenci (C)	Lenawee	2,089	0	4	11	6	18	2,110
Morley (V)	Mecosta	496	4	7	0	0	0	507
Morrice (V)	Shiawassee	712	1	16	4	0	16	733
Mount Clemens (C)	Macomb	15,046	3,437	77	87	159	300	18,806
Mount Morris (C)	Genesee	3,182	5	27	13	19	44	3,246

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Mount Pleasant (C)	Isabella	22,800	397	145	126	278	298	23,746
Muir (V)	Ionia	695	0	2	0	1	2	698
Mulliken (V)	Eaton	529	6	1	0	14	20	550
Munising (C)	Alger	2,985	0	86	8	4	15	3,083
Muskegon (C)	Muskegon	31,042	8,746	325	138	572	1,216	40,823
Muskegon Heights (C)	Muskegon	5,269	9,086	88	22	146	267	14,611
Nashville (V)	Barry	1,603	0	21	1	3	13	1,628
Negaunee (C)	Marquette	5,154	0	18	11	6	14	5,189
New Baltimore (C)	Macomb	5,363	15	24	18	19	53	5,439
New Buffalo (C)	Berrien	2,789	11	15	2	4	16	2,821
New Era (V)	Oceana	528	0	0	1	5	4	534
New Haven (V)	Macomb	1,082	705	15	4	65	66	1,871
New Lothrop (V)	Shiawassee	634	0	6	0	6	17	646
Newaygo (C)	Newaygo	1,246	0	5	1	19	47	1,271
Newberry (V)	Luce	2,034	0	82	3	1	1	2,120
Niles (C)	Berrien	11,488	1,426	66	19	116	253	13,115
North Adams (V)	Hillsdale	561	0	4	0	0	2	565
North Branch (V)	Lapeer	889	0	3	0	4	13	896
North Muskegon (C)	Muskegon	3,981	15	4	21	3	24	4,024
Northport (V)	Leelanau	595	0	9	1	6	6	611
Northville (C)	Oakland-Wayne	5,632	10	13	34	9	39	5,698
Norton Shores (C)	Muskegon	21,476	210	122	60	157	317	22,025
Norway (C)	Dickinson	2,913	0	2	2	2	8	2,919
Novi (C)	Oakland	22,039	43	44	324	75	221	22,525
Oak Park (C)	Oakland	27,025	3,814	44	439	215	323	31,537
Oakley (V)	Saginaw	396	2	6	0	8	27	412
Olivet (C)	Eaton	1,533	47	4	13	7	18	1,604
Omer (C)	Arenac	398	0	5	0	0	5	403
Onaway (C)	Presque Isle	1,068	4	8	4	0	0	1,084
Onekama (V)	Manistee	560	0	6	0	16	14	582

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Onsted (V)	Lenawee	662	0	0	0	8	11	670
Ontonagon (V)	Ontonagon	2,171	0	9	2	0	1	2,182
Orchard Lake Village (C)	Oakland	1,769	5	0	17	7	18	1,798
Ortonville (V)	Oakland	1,175	0	2	3	10	4	1,190
Otisville (V)	Genesee	673	1	3	1	4	4	682
Otsego (C)	Allegan	3,762	9	11	1	19	26	3,802
Otter Lake (V)	Lapeer-Genesee	451	0	5	0	0	0	456
Ovid (V)	Clinton	1,675	0	3	1	33	76	1,712
Owendale (V)	Huron	306	0	0	1	1	3	308
Owosso (C)	Shiawassee	16,185	16	77	51	126	303	16,455
Oxford (V)	Oakland	2,714	0	12	7	13	35	2,746
Parchment (C)	Kalamazoo	1,750	34	5	24	4	15	1,817
Parma (V)	Jackson	867	2	2	1	1	2	873
Paw Paw (V)	Van Buren	3,112	62	22	2	13	33	3,211
Peck (V)	Sanilac	590	0	7	1	8	13	606
Pellston (V)	Emmet	525	0	36	3	1	4	565
Pentwater (V)	Oceana	1,155	1	8	0	1	2	1,165
Perrinton (V)	Gratiot	445	0	0	0	3	4	448
Perry (C)	Shiawassee	2,036	0	5	4	6	13	2,051
Petersburg (C)	Monroe	1,221	0	1	0	0	10	1,222
Petoskey (C)	Emmet	5,846	15	175	10	51	8	6,097
Pewamo (V)	Ionia	487	0	0	0	1	4	488
Pierson (V)	Montcalm	214	0	0	0	2	2	216
Pigeon (V)	Huron	1,205	0	0	5	37	48	1,247
Pinckney (V)	Livingston	1,366	2	11	6	5	13	1,390
Pinconning (C)	Bay	1,378	0	29	2	21	36	1,430
Plainwell (C)	Allegan	3,729	2	10	3	7	24	3,751
Pleasant Ridge (C)	Oakland	3,183	10	4	10	10	22	3,217
Plymouth (C)	Wayne	9,859	3	42	34	48	105	9,986
Pontiac (C)	Oakland	44,374	28,532	430	498	2,881	5,007	76,715

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Port Austin (V)	Huron	828	5	4	1	1	0	839
Port Hope (V)	Huron	358	0	0	10	1	1	358
Port Huron (C)	St. Clair	30,940	2,127	207	129	578	1,007	33,981
Port Sanilac (V)	Sanilac	583	0	0	1	14	19	598
Portage (C)	Kalamazoo	36,760	668	123	373	233	367	38,157
Portland (C)	Ionia	3,929	0	11	7	16	56	3,963
Posen (V)	Presque Isle	270	0	0	0	0	0	270
Potterville (C)	Eaton	1,468	9	1	4	20	34	1,502
Powers (V)	Menominee	483	1	6	0	0	0	490
Prescott (V)	Ogemaw	328	0	4	0	0	0	332
Quincy (V)	Branch	1,561	3	2	2	1	8	1,569
Ravenna (V)	Muskegon	948	0	3	0	0	10	951
Reading (C)	Hillsdale	1,199	0	2	1	1	4	1,203
Reed City (C)	Osceola	2,193	5	9	9	5	11	2,221
Reese (V)	Tuscola	1,635	1	0	0	9	26	1,645
Richland (V)	Kalamazoo	482	0	0	0	4	0	486
Richmond (C)	Macomb	3,518	0	6	4	8	29	3,536
River Rouge (C)	Wayne	8,467	4,218	84	22	121	292	12,912
Riverview (C)	Wayne	14,147	121	30	203	68	166	14,569
Rochester (C)	Oakland	7,029	51	7	87	29	73	7,203
Rockford (C)	Kent	3,294	1	9	12	8	15	3,324
Rockwood (C)	Wayne	3,288	0	33	6	19	40	3,346
Rogers City (C)	Presque Isle	3,896	0	16	10	1	17	3,923
Romeo (V)	Macomb	3,242	238	4	4	21	38	3,509
Romulus (C)	Wayne	20,095	4,333	110	109	210	345	24,857
Roosevelt Park (C)	Muskegon	3,938	33	7	16	21	38	4,015
Roscommon (V)	Roscommon	826	0	4	0	4	1	834
Rose City (C)	Ogemaw	648	7	1	5	0	2	661
Rosebush (V)	Isabella	325	0	11	0	0	8	336
Roseville (C)	Macomb	53,030	569	210	321	181	633	54,311

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Rothbury (V)	Oceana	508	0	3	3	8	35	522
Royal Oak (C)	Oakland	69,916	116	142	483	236	566	70,893
Saginaw (C)	Saginaw	44,468	27,555	399	185	4,901	6,987	77,508
Saline (C)	Washtenaw	6,293	39	16	100	35	65	6,483
Sand Lake (V)	Kent	387	0	0	0	1	5	388
Sandusky (C)	Sanliac	2,167	0	0	18	31	58	2,216
Sanford (V)	Midland	855	1	4	0	4	10	864
Saranac (V)	Ionia	1,421	0	0	0	0	3	1,421
Saugatuck (V)	Allegan	1,060	2	5	8	4	22	1,079
Sault Ste. Marie (C)	Chippewa	13,035	38	1,308	26	41	42	14,448
Schoolcraft (V)	Kalamazoo	1,355	0	1	1	2	7	1,359
Scottville (C)	Mason	1,206	4	16	6	9	28	1,241
Sebewaing (V)	Huron	2,000	0	8	1	37	53	2,046
Shelby (V)	Oceana	1,535	1	13	1	74	99	1,624
Shepherd (V)	Isabella	1,515	0	3	1	15	34	1,534
Sheridan (V)	Montcalm	657	1	2	3	1	7	664
Sherwood (V)	Branch	352	0	0	1	0	2	353
Shoreham (V)	Berrien	735	3	0	4	0	10	742
South Haven (C)	Van Buren	4,881	943	51	22	46	104	5,943
South Lyon (C)	Oakland	5,176	0	8	12	18	37	5,214
South Range (V)	Houghton	856	0	0	5	0	6	861
South Rockwood (V)	Monroe	1,348	0	2	1	2	3	1,353
Southfield (C)	Oakland	66,747	6,976	119	1,267	459	609	75,568
Southgate (C)	Wayne	31,261	273	107	202	215	663	32,058
Sparta (V)	Kent	3,336	2	4	6	25	47	3,373
Spring Lake (V)	Ottawa	2,713	5	2	6	5	14	2,731
Springfield (C)	Calhoun	5,550	274	17	52	24	69	5,917
Springport (V)	Jackson	658	0	4	1	12	17	675
St. Charles (V)	Saginaw	2,245	0	16	1	14	51	2,276
St. Clair (C)	St. Clair	4,739	0	9	21	11	4	4,780

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
St. Clair Shores (C)	Macomb	75,284	181	230	366	149	561	76,210
St. Ignace (C)	Mackinac	2,286	0	335	4	7	7	2,632
St. Johns (C)	Clinton	7,215	5	24	27	105	198	7,376
St. Joseph (C)	Berrien	9,357	171	30	40	24	66	9,622
St. Louis (C)	Gratiot	3,944	10	7	3	143	252	4,107
Stambaugh (C)	Iron	1,427	0	11	1	3	2	1,442
Standish (C)	Arenac	1,261	0	1	1	1	7	1,264
Stanton (C)	Montcalm	1,296	3	5	9	2	8	1,315
Stanwood (V)	Mecosta	209	0	0	0	0	0	209
Stephenson (C)	Menominee	965	1	1	0	0	0	967
Sterling Heights (C)	Macomb	106,155	204	161	2,102	377	934	108,999
Sterling (V)	Arenac	454	0	2	0	1	4	457
Stevensville (V)	Berrien	1,264	0	1	0	3	9	1,268
Stockbridge (V)	Ingham	1,204	2	2	0	5	8	1,213
Sturgis (C)	St. Joseph	9,353	54	17	21	23	120	9,468
Sunfield (V)	Eaton	576	0	1	1	13	21	591
Suttons Bay (V)	Leelanau	501	0	1	2	0	0	504
Swartz Creek (V)	Genesee	4,895	18	36	23	41	69	5,013
Sylvan Lake (C)	Oakland	1,921	15	3	1	9	13	1,949
Tawas City (C)	Isoco	1,957	0	7	2	1	1	1,967
Taylor (C)	Wayne	74,626	1,266	339	750	587	1,779	77,568
Tecumseh (C)	Lenawee	7,139	1	11	58	131	244	7,320
Tekonsha (V)	Calhoun	753	0	1	1	0	1	755
Thompsonville (V)	Benzie	322	3	3	0	3	9	331
Three Oaks (V)	Berrien	1,764	0	6	0	4	7	1,774
Three Rivers (C)	St. Joseph	6,103	799	18	61	34	84	7,015
Traverse City (C)	Grand Traverse	15,185	44	173	70	44	89	15,516
Trenton (C)	Wayne	22,526	23	46	86	81	208	22,762
Troy (C)	Oakland	63,386	642	122	2,463	489	664	67,102
Turner (V)	Arenac	179	0	8	0	0	0	187

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Tustin (V)	Osceola	263	0	1	0	0	0	264
Twining (V)	Arenac	195	0	0	0	1	2	196
Ubly (V)	Huron	857	0	5	0	0	7	862
Union City (V)	Branch-Calhoun	1,641	1	15	1	9	13	1,667
Unionville (V)	Tuscola	572	0	0	0	6	10	578
Utica (C)	Macomb	5,177	16	13	44	32	66	5,282
Vandalia (V)	Cass	87	353	3	0	4	1	447
Vanderbilt (V)	Otsego	521	0	0	3	1	1	525
Vassar (C)	Tuscola	2,586	94	2	1	44	52	2,727
Vermontville (V)	Eaton	828	0	1	1	2	12	832
Vernon (V)	Shiawassee	997	2	8	0	1	3	1,008
Vicksburg (V)	Kalamazoo	2,202	4	7	3	8	16	2,224
Wakefield (C)	Gogebic	2,560	1	22	8	0	8	2,591
Waldron (V)	Hillsdale	569	0	0	1	0	0	570
Walker (C)	Kent	14,796	103	49	76	64	133	15,088
Walkerville (V)	Oceana	290	0	5	0	1	1	296
Walled Lake (C)	Oakland	4,643	6	42	36	21	33	4,748
Warren (C)	Macomb	158,283	297	498	1,338	718	1,483	161,134
Watervliet (C)	Berrien	1,852	0	10	3	2	10	1,867
Wayland (C)	Allegan	2,001	1	17	3	1	4	2,023
Wayne (C)	Wayne	19,752	1,123	109	86	89	298	21,159
Webberville (V)	Ingham	1,523	0	6	3	3	14	1,535
West Branch (C)	Ogemaw	1,772	0	1	3	9	6	1,785
Westland (C)	Wayne	81,065	2,200	307	629	402	1,244	84,603
Westphalia (V)	Clinton	894	0	0	0	2	7	896
White Cloud (C)	Newaygo	1,080	4	6	1	10	13	1,101
White Pigeon (V)	St. Joseph	1,475	0	2	0	1	1	1,478
Whitehall (C)	Muskegon	2,792	19	23	3	19	31	2,856
Whittemore (C)	Iosco	436	0	2	0	0	6	438
Williamston (C)	Ingham	2,929	10	13	5	24	34	2,981

TABLE I-3. POPULATION AND LOCATION OF MICHIGAN INCORPORATED PLACES, BY RACE: CENSUS 1980 (cont.)

Place	County	White	Black	American Indian	Asian	Other	Spanish Origin	Total
Wixom (C)	Oakland	6,605	32	20	26	22	58	6,705
Wolverine Lake (V)	Oakland	4,945	1	5	11	6	12	4,968
Wolverine (V)	Cheboygan	364	0	0	0	0	0	364
Woodhaven (C)	Wayne	10,618	71	27	125	61	220	10,902
Woodland (V)	Berry	430	0	0	0	1	4	431
Wyandotte (C)	Wayne	33,619	29	117	90	151	481	34,006
Wyoming (C)	Kent	57,493	976	258	329	560	1,218	59,616
Yale (C)	St. Clair	1,809	2	1	0	2	8	1,814
Ypsilanti (C)	Washtenaw	16,274	7,060	92	269	336	372	24,031
Zeeland (C)	Ottawa	4,658	7	17	34	48	96	4,764
Zilwaukee (C)	Saginaw	2,145	1	0	4	51	87	2,201

SOURCE: Bureau of the Census, tapes.

TABLE I-4. POPULATION OF MICHIGAN COUNTIES: CENSUS 1930, 1940, 1950, 1960, 1970, 1980; AND 1 JULY 1982 ESTIMATES

County	1930	1940	1950	1960	1970	1980	Preliminary[a] July 1, 1982 Estimates
Alcona	4,989	5,463	5,856	6,352	7,113	9,740	9,923
Alger	9,327	10,167	10,007	9,250	8,568	9,225	9,018
Allegan	38,974	41,839	47,493	57,729	66,575	81,555	83,706
Alpena	18,574	20,766	22,189	28,556	30,708	32,315	32,341
Antrim	9,979	10,964	10,721	10,373	12,612	16,194	16,830
Arenac	8,007	9,233	9,644	9,860	11,149	14,706	15,225
Baraga	9,168	9,356	8,037	7,151	7,789	8,484	8,606
Barry	20,928	22,613	26,183	31,738	38,166	45,781	46,569
Bay	69,474	74,981	88,461	107,042	117,339	119,881	119,642
Benzie	6,587	7,800	8,306	7,834	8,593	11,205	11,005
Berrien	81,066	89,117	115,702	149,865	163,940	171,276	167,354
Branch	23,950	25,845	30,202	34,903	37,906	40,188	39,747
Calhoun	87,043	94,206	120,813	138,858	141,963	141,557	141,826
Cass	20,888	21,910	28,185	36,932	43,312	49,499	48,237
Charlevoix	11,981	13,031	13,475	13,421	16,541	19,907	19,658
Cheboygan	11,502	13,644	13,731	14,550	16,573	20,649	20,993
Chippewa	25,047	27,807	29,206	32,655	32,412	29,029	29,575
Clare	7,032	9,163	10,253	11,647	16,695	23,822	24,206
Clinton	24,174	26,671	31,195	37,969	48,492	55,893	55,364
Crawford	3,097	3,765	4,151	4,971	6,482	9,465	9,545
Delta	32,280	34,037	32,913	34,298	35,924	38,947	39,693
Dickinson	29,941	28,731	24,844	23,917	23,753	25,341	25,511
Eaton	31,728	34,124	40,023	49,684	68,892	88,337	88,870
Emmet	15,109	15,791	16,534	15,904	18,331	22,992	23,837
Genesee	211,641	227,944	270,963	374,313	445,589	450,449	446,610

TABLE I-4. POPULATION OF MICHIGAN COUNTIES: CENSUS 1930, 1940, 1950, 1960, 1970, 1980; AND 1 JULY 1982 ESTIMATES (cont.)

County	1930	1940	1950	1960	1970	1980	Preliminary[a] July 1, 1982 Estimates
Gladwin	7,424	9,385	9,451	10,769	13,471	19,957	20,535
Gogebic	31,577	31,797	27,053	24,370	20,676	19,686	19,613
Grand Traverse	20,011	23,390	28,598	33,490	39,175	54,899	56,607
Gratiot	30,252	32,205	33,429	37,012	39,246	40,448	39,836
Hillsdale	27,417	29,092	31,916	34,742	37,171	42,071	41,581
Houghton	52,851	47,631	39,771	35,654	34,652	37,872	38,366
Huron	31,132	32,584	33,149	34,006	34,083	36,459	36,554
Ingham	116,587	130,616	172,941	211,296	261,039	275,520	275,046
Ionia	35,093	35,710	38,158	43,132	45,848	51,815	52,412
Iosco	7,517	8,560	10,906	16,505	24,905	28,349	30,089
Iron	20,805	20,243	17,692	17,184	13,813	13,635	13,480
Isabella	21,126	25,982	28,964	35,348	44,594	54,110	54,547
Jackson	92,304	93,108	107,925	131,994	143,274	151,495	149,790
Kalamazoo	91,368	100,085	126,707	169,712	201,550	212,378	217,609
Kalkaska	3,799	5,159	4,597	4,382	5,372	10,952	11,348
Kent	240,511	246,338	288,292	363,187	411,044	444,506	455,827
Keweenaw	5,076	4,004	2,918	2,417	2,264	1,963	2,022
Lake	4,066	4,798	5,257	5,338	5,661	7,711	8,335
Lapeer	28,348	32,116	35,794	41,926	52,361	70,038	70,242
Leelanau	8,206	8,436	8,647	9,321	10,872	14,007	14,681
Lenawee	49,849	53,110	64,629	77,789	81,951	89,948	89,274
Livingston	19,274	20,863	26,725	38,233	58,967	100,289	99,595
Luce	6,528	7,423	8,147	7,827	6,789	6,659	6,278
Mackinac	8,783	9,438	9,287	10,853	9,660	10,178	10,175
Macomb	77,146	107,638	184,961	405,804	625,309	694,600	694,166

TABLE I-4. POPULATION OF MICHIGAN COUNTIES: CENSUS 1930, 1940, 1950, 1960, 1970, 1980; AND 1 JULY 1982 ESTIMATES (cont.)

County	1930	1940	1950	1960	1970	1980	Preliminary[a] July 1, 1982 Estimates
Manistee	17,409	18,450	18,524	19,042	20,393	23,019	22,464
Marquette	44,076	47,144	47,654	56,154	64,686	74,101	74,959
Mason	18,756	19,378	20,474	21,929	22,612	26,365	26,811
Mecosta	15,738	16,902	18,968	21,051	27,992	36,961	37,604
Menominee	23,652	24,883	25,299	24,685	24,587	26,201	25,872
Midland	19,150	27,094	35,662	51,450	63,769	73,578	73,709
Missaukee	6,992	8,034	7,458	6,784	7,126	10,009	10,364
Monroe	52,485	58,620	75,666	101,120	119,215	134,659	131,172
Montcalm	27,471	28,581	31,013	35,795	39,660	47,555	49,064
Montmorency	2,814	3,840	4,125	4,424	5,247	7,492	7,376
Muskegon	84,630	94,501	121,545	149,943	157,426	157,589	157,045
Newaygo	17,029	19,286	21,567	24,160	27,992	34,917	36,363
Oakland	211,251	254,068	396,001	690,259	907,871	1,011,793	1,012,028
Oceana	13,805	14,812	16,105	16,547	17,984	22,002	21,855
Ogemaw	6,595	8,720	9,345	9,680	11,903	16,436	16,406
Ontonagon	11,114	11,359	10,282	10,584	10,548	9,861	10,061
Osceola	12,806	13,309	13,797	13,595	14,838	18,928	19,429
Oscoda	1,728	2,543	3,134	3,447	4,726	6,858	7,128
Otsego	5,554	5,827	6,435	7,545	10,422	14,993	15,090
Ottawa	54,858	59,660	73,751	98,719	128,181	157,174	159,624
Presque Isle	11,330	12,250	11,996	13,117	12,836	14,267	14,149
Roscommon	2,055	3,668	5,916	7,200	9,892	16,374	17,829
Saginaw	120,717	130,468	153,515	190,752	219,743	228,059	224,726
St. Clair	67,563	76,222	91,599	107,201	120,175	138,802	138,887
St. Joseph	30,618	31,749	35,071	42,332	47,392	56,083	57,906

TABLE I-4. POPULATION OF MICHIGAN COUNTIES: CENSUS 1930, 1940, 1950, 1960, 1970, 1980; AND 1 JULY 1982 ESTIMATES (cont.)

County	1930	1940	1950	1960	1970	1980	Preliminary[a] July 1, 1982 estimates
Sanilac	27,751	30,114	30,837	32,314	35,181	40,789	39,843
Schoolcraft	8,451	9,524	9,148	8,953	8,226	8,575	8,419
Shiawassee	39,517	41,207	45,967	53,446	63,075	71,140	69,665
Tuscola	32,934	35,694	38,258	43,305	48,603	56,961	55,886
Van Buren	32,637	35,111	39,184	48,395	56,173	66,814	67,355
Washtenaw	65,530	80,810	134,606	172,440	234,103	264,748	267,849
Wayne	1,888,946	2,015,623	2,435,235	2,666,297	2,670,368	2,337,891	2,282,298
Wexford	16,827	17,976	18,628	18,466	19,717	25,102	26,210
TOTAL	4,842,325	5,256,106	6,371,766	7,823,194	8,881,826	9,262,078	9,227,300

SOURCES: Bureau of Census, U.S. Census of Population: 1940, Number of Inhabitants, Michigan (Washington, D.C.: 1941), Table 5, U.S. Census of Population: 1950, Number of Inhabitants, (Washington, D.C.: 1951), Table 5, U.S. Census of Population: 1960, Number of Inhabitants, Michigan (Washington, D.C.: 1961), Table 6, and U.S. Census of Population: 1970, Number of Inhabitants, Michigan (Washington, D.C.: 1971), Table 9, and Bureau of the Census, 1980 Census of Population Number of Inhabitants (Washington, D.C.: 1982), Table 2. and Budget, Information System Division, special release; and Michigan Department of Management and Budget, special release.

a. The preliminary estimates are subject to change when symptomatic data become available.

TABLE I-5. COMPONENTS OF POPULATION CHANGE IN MICHIGAN, BY COUNTY: CENSUS 1970 TO CENSUS 1980 AND 1 JULY 1982 ESTIMATES

County	1970 to 1980				1980 to Preliminary 1 July 1982 estimates[a]			
	Population change	Births[b]	Deaths	Net migration	Population change	Births[b]	Deaths	Net migration
Alcona	2,627	1,026	1,146	2,747	183	245	273	211
Alger	657	1,322	1,033	368	-208	342	235	-315
Allegan	14,980	12,286	6,038	8,732	2,151	3,068	1,383	466
Alpena	1,607	4,885	2,700	578	26	1,119	617	482
Antrim	3,582	2,268	1,647	2,961	636	541	387	482
Arenac	3,557	2,060	1,421	2,918	519	515	373	377
Baraga	695	1,323	1,004	376	122	277	240	85
Barry	7,615	6,409	3,589	4,795	788	1,580	756	-37
Bay	2,542	19,183	9,706	-6,935	-240	4,106	2,107	-2,239
Benzie	2,612	1,427	1,221	2,406	-201	390	270	-321
Berrien	7,336	29,338	15,414	6,588	-3,923	5,954	3,285	-592
Branch	2,282	6,021	3,784	45	-441	1,527	817	-1,151
Calhoun	-406	22,600	12,946	-10,060	269	4,897	2,783	-1,845
Cass	6,187	7,137	4,058	3,108	-1,262	1,601	881	-1,982
Charlevoix	3,366	2,907	1,859	2,318	-250	753	435	-568
Cheboygan	4,076	3,052	2,004	3,028	344	766	477	55
Chippewa	-3,383	6,379	2,957	-6,805	546	940	648	254
Clare	7,127	2,872	2,353	6,608	384	805	558	137
Clinton	7,401	8,185	3,229	2,445	-529	2,012	682	-1,859
Crawford	2,983	1,293	853	2,543	80	409	210	-120
Delta	3,023	5,993	4,055	1,085	746	1,334	826	238
Dickinson	1,588	3,305	3,066	1,349	170	872	653	-50
Eaton	19,445	11,307	5,065	13,203	533	2,816	1,166	-1,117
Emmet	4,661	3,183	2,028	3,506	845	781	483	547
Genesee	4,860	78,036	32,681	-40,495	-3,840	16,626	7,331	-13,135

TABLE I-5. COMPONENTS OF POPULATION CHANGE IN MICHIGAN, BY COUNTY: CENSUS 1970 TO CENSUS 1980 AND 1 JULY 1982 ESTIMATES (cont.)

	1970 to 1980				1980 to Preliminary 1 July 1982 estimates[a]			
County	Population change	Births[b]	Deaths	Net migration	Population change	Births[b]	Deaths	Net migration
Gladwin	6,486	2,387	1,754	5,853	578	636	452	394
Gogebic	-990	2,513	3,041	-462	-73	523	632	36
Grand Traverse	15,724	7,440	3,910	12,194	1,708	2,118	1,005	595
Gratiot	1,202	6,740	3,579	-1,959	-612	1,387	883	-1,116
Hillsdale	4,900	6,214	3,655	2,341	-491	1,427	869	1,049
Houghton	3,220	5,033	4,755	2,942	494	1,139	943	298
Huron	2,376	5,626	4,105	855	95	1,296	889	-313
Ingham	14,481	44,506	16,522	-13,503	-474	9,967	3,647	-6,794
Ionia	5,967	8,434	4,199	1,732	597	2,050	925	-529
Iosco	3,444	5,487	2,566	523	1,740	1,251	617	1,106
Iron	-178	1,529	2,109	402	-155	404	421	-138
Isabella	9,516	7,162	3,013	5,367	437	1,610	677	-497
Jackson	8,221	22,559	12,712	-1,626	1,705	4,934	2,812	-3,827
Kalamazoo	10,828	30,173	13,922	-5,423	5,231	7,287	3,264	1,208
Kalkaska	5,580	1,519	913	4,974	396	486	231	141
Kent	33,462	70,882	34,662	-2,758	11,321	18,839	7,703	185
Keweenaw	-301	271	352	-220	59	48	88	99
Lake	2,050	970	1,102	2,182	624	254	260	630
Lapeer	17,677	10,432	4,447	11,691	204	2,568	1,063	-1,302
Leelanau	3,135	1,627	1,225	2,733	674	442	266	498
Lenawee	7,997	14,657	7,277	617	-675	3,094	1,600	-2,169
Livingston	41,322	11,569	5,001	34,754	-694	3,217	1,303	-2,608
Luce	-130	1,024	738	-416	-381	220	164	-437
Mackinac	518	1,455	1,148	211	-3	339	265	-77
Macomb	69,291	96,355	40,065	13,001	-435	21,502	10,698	-11,239

TABLE I-5. COMPONENTS OF POPULATION CHANGE IN MICHIGAN, BY COUNTY: CENSUS 1970 TO CENSUS 1980 AND 1 JULY 1982 ESTIMATES (cont.)

County	1970 to 1980				1980 to Preliminary 1 July 1982 estimates[a]			
	Population change	Births[b]	Deaths	Net migration	Population change	Births[b]	Deaths	Net migration
Manistee	2,626	2,903	2,626	2,349	-555	655	552	-658
Marquette	9,415	12,781	5,380	2,014	858	2,965	1,060	-1,048
Mason	3,753	3,493	2,604	2,864	446	969	632	109
Mecosta	8,969	4,680	2,446	6,735	643	1,005	514	152
Menominee	1,614	3,538	2,820	896	-329	889	647	-571
Midland	9,809	11,222	4,001	2,588	131	2,615	1,012	-1,472
Missaukee	2,883	1,443	885	2,325	355	470	203	88
Monroe	15,444	20,130	8,970	4,284	-3,487	4,381	1,992	-5,876
Montcalm	7,895	7,574	4,420	4,741	1,509	1,814	992	687
Montmorency	2,245	947	841	2,139	-117	240	210	-147
Muskegon	163	25,745	13,599	-11,983	-544	5,820	3,096	-3,268
Newaygo	6,925	5,024	3,142	5,043	1,446	1,249	725	922
Oakland	103,922	137,088	65,304	32,138	235	31,469	16,133	-15,101
Oceana	4,018	3,473	2,077	2,622	-148	856	411	-593
Ogemaw	4,533	2,114	1,834	4,253	-30	610	421	-219
Ontonagon	-687	1,590	1,227	-1,050	200	254	245	191
Osceola	4,090	2,901	1,852	3,041	501	731	374	144
Oscoda	2,132	762	781	2,151	270	248	191	213
Otsego	4,571	2,205	1,067	3,430	97	605	304	-205
Ottawa	28,993	23,300	9,110	14,800	2,450	6,094	2,060	-1,584
Presque Isle	1,431	2,056	1,342	717	-119	498	355	-262
Roscommon	6,482	1,690	1,838	6,630	1,455	531	511	1,435
Saginaw	8,316	39,289	17,738	-13,235	-3,334	8,366	3,798	-7,902
St. Clair	18,627	20,861	12,350	10,116	85	4,625	2,701	-1,839
St. Joseph	8,691	8,866	4,948	4,773	1,823	2,094	1,114	843

TABLE I-5. COMPONENTS OF POPULATION CHANGE IN MICHIGAN, BY COUNTY: CENSUS 1970 TO CENSUS 1980 AND 1 JULY 1982 ESTIMATES (cont.)

	1970 to 1980				1980 to Preliminary 1 July 1982 estimates[a]			
County	Population change	Births[b]	Deaths	Net migration	Population change	Births[b]	Deaths	Net migration
Sanilac	5,608	6,070	4,085	3,623	-946	1,401	898	-1,449
Schoolcraft	349	1,301	1,109	157	-157	287	220	-224
Shiawassee	8,065	11,780	5,189	1,474	-1,475	2,548	1,116	-2,907
Tuscola	8,358	8,846	4,495	4,007	-1,076	2,003	1,000	-2,079
Van Buren	10,641	10,401	5,928	6,168	541	2,563	1,351	-671
Washtenaw	30,645	37,715	13,067	5,997	3,101	8,748	3,117	-2,530
Wayne	-332,477	404,359	247,901	-488,935	-55,593	77,890	50,948	-82,535
Wexford	5,385	3,687	2,362	4,060	1,108	972	575	711
TOTAL	380,252	1,440,182	759,956	-299,974	-34,800	317,800	169,000	183,500

SOURCE: Michigan Department of Management and Budget, Information System Division, special release.

a. The preliminary estimates are subject to change when more symptomatic data become available.
b. Corrected for underregistration.

TABLE I-6. PERCENTAGE DISTRIBUTION OF THE MICHIGAN POPULATION BY AGE GROUP: CENSUS 1960, 1970 AND 1980

Age	Female			Male			Total		
group	1960	1970	1980	1960	1970	1980	1960	1970	1980
Under 5	12.1	8.7	7.1	12.7	9.4	7.8	12.4	9.1	7.4
5-9	10.9	10.0	7.5	11.5	10.8	8.2	11.2	10.4	7.9
10-14	9.3	10.6	8.3	9.7	11.5	9.1	9.5	11.0	8.7
15-19	7.3	9.6	9.4	7.1	10.0	10.1	7.2	9.8	9.7
20-24	6.0	8.3	9.5	5.4	7.6	9.8	5.7	7.9	9.7
25-29	6.2	6.6	8.6	5.9	6.7	8.8	6.1	6.7	8.7
30-34	6.9	5.5	7.6	6.9	5.5	7.7	6.9	5.5	7.6
35-39	7.2	5.4	6.0	7.0	5.3	6.2	7.1	5.3	6.1
40-44	6.6	5.9	5.0	6.4	6.0	5.0	6.5	6.0	5.0
45-49	5.8	6.0	4.8	5.9	5.9	4.8	5.9	6.0	4.8
50-54	5.0	5.4	5.2	5.2	5.3	5.2	5.1	5.4	5.2
55-59	4.4	4.6	5.2	4.6	4.6	5.0	4.5	4.6	5.1
60-64	3.7	3.8	4.4	3.8	3.7	4.1	3.7	3.8	4.2
65-69	3.2	3.1	3.7	3.2	2.8	3.2	3.2	3.0	3.4
70-74	2.4	2.5	2.9	2.3	2.1	2.2	2.4	2.3	2.6
75-79	1.6	1.9	2.2	1.3	1.4	1.5	1.4	1.7	1.8
80-84	0.8	1.1	1.4	0.6	0.8	0.3	0.7	1.0	1.1
85 - over	0.5	0.8	1.2	0.3	0.5	0.6	0.4	0.6	0.9
Median age	28.5	27.1	29.8	28.0	25.5	27.8	28.3	26.3	28.8

SOURCE: Bureau of the Census, 1980 Census of Population, General Population Characteristics, Michigan (Washington, D.C.: 1982) PC80-1-B24, Table 20.

TABLE I-7. POPULATION OF MICHIGAN, BY RACE AND COUNTY, CENSUS: 1980

County	White	Black	Indian	Asian	Other	Spanish origin[a]	Total
Alcona	9,660	6	44	16	14	49	9,740
Alger	8,952	49	194	14	16	36	9,225
Allegan	78,354	1,471	408	190	1,132	2,011	81,555
Alpena	32,134	19	83	33	46	79	32,315
Antrim	16,019	15	119	20	21	65	16,194
Arenac	14,529	7	87	20	63	160	14,706
Baraga	7,656	58	754	9	7	37	8,484
Barry	45,259	66	174	76	206	420	45,781
Bay	116,172	1,023	604	289	1,793	3,162	119,881
Benzie	10,970	36	143	13	43	105	11,205
Berrien	144,007	24,817	593	822	1,037	2,088	171,276
Branch	39,855	79	102	58	94	223	40,188
Calhoun	125,616	13,577	452	541	1,371	2,433	141,557
Cass	44,740	4,150	256	110	243	337	49,499
Charlevoix	19,511	15	325	38	18	62	19,907
Cheboygan	20,347	13	240	32	17	60	20,649
Chippewa	26,121	369	2,395	52	92	91	29,029
Clare	23,620	8	139	20	35	96	23,822
Clinton	54,894	169	218	92	520	991	55,893
Crawford	9,333	56	44	16	16	49	9,465
Delta	38,290	12	439	53	153	103	38,947
Dickinson	25,244	8	37	26	26	46	25,341
Eaton	84,846	1,987	264	399	841	1,616	88,337
Emmet	22,169	100	595	39	89	57	22,992
Genesee	362,824	78,804	2,696	1,936	4,189	7,649	450,449
Gladwin	19,812	11	96	19	19	117	19,957
Gogebic	19,256	129	260	20	21	60	19,686
Grand Traverse	54,062	163	394	142	138	297	54,899
Gratiot	39,482	36	126	59	745	1,321	40,448

TABLE I-7. POPULATION OF MICHIGAN, BY RACE AND COUNTY, CENSUS: 1980 (cont.)

County	White	Black	Indian	Asian	Other	Spanish origin[a]	Total
Hillsdale	41,682	101	77	93	118	307	42,071
Houghton	37,315	110	76	238	133	127	37,872
Huron	36,096	25	78	56	204	396	36,459
Ingham	242,649	21,282	1,523	2,766	7,300	10,559	275,520
Ionia	49,402	1,642	188	104	479	907	51,815
Iosco	27,219	654	158	140	178	259	28,349
Iron	13,533	2	60	26	14	22	13,635
Isabella	52,326	488	681	163	452	662	54,110
Jackson	138,529	10,840	496	522	1,108	1,807	151,495
Kalamazoo	192,265	15,846	658	1,417	2,192	2,605	212,378
Kalkaska	10,875	3	34	25	15	54	10,952
Kent	403,512	31,460	2,059	2,382	5,093	8,741	444,506
Keweenaw	1,942	9	1	2	9	6	1,963
Lake	6,333	1,285	50	7	36	50	7,711
Lapeer	68,767	163	168	184	756	1,325	70,038
Leelanau	13,757	18	178	21	33	72	14,007
Lenawee	86,530	758	171	293	2,196	4,573	89,948
Livingston	98,808	478	411	271	321	781	100,289
Luce	6,392	1	254	9	3	16	6,659
Mackinac	9,246	5	901	13	13	30	10,178
Macomb	675,135	9,142	1,942	5,616	2,765	6,638	694,600
Manistee	22,615	47	202	51	104	316	23,019
Marquette	71,570	1,270	614	339	308	489	74,101
Mason	25,727	178	169	93	198	370	26,365
Mecosta	35,780	782	154	120	125	202	36,961
Menominee	25,827	6	307	36	25	58	26,201
Midland	71,844	566	190	587	391	810	73,578
Missaukee	9,925	2	34	15	33	26	10,009
Monroe	131,025	2313	255	280	786	1,803	134,659
Montcalm	46,887	112	161	111	284	581	47,555

TABLE I-7. POPULATION OF MICHIGAN, BY RACE AND COUNTY, CENSUS: 1980 (cont.)

County	White	Black	Indian	Asian	Other	Spanish origin[a]	Total
Montmorency	7,455	1	19	8	9	44	7,492
Muskegon	135,531	19,175	1,120	395	1,368	2,833	157,589
Newaygo	33,808	555	142	59	353	680	34,917
Oakland	942,067	47,962	2,737	11,720	7,307	14,478	1,011,793
Oceana	20,901	42	221	33	805	1,132	22,002
Ogemaw	16,337	9	63	16	11	53	16,436
Ontonagon	9,773	3	62	16	7	16	9,861
Osceola	18,774	17	77	35	25	106	18,928
Oscoda	6,817	1	30	2	8	10	6,858
Otsego	14,889	6	29	56	13	49	14,993
Ottawa	152,789	632	420	689	2,644	5,006	157,174
Presque Isle	14,177	6	40	30	14	38	14,267
Roscommon	16,290	0	51	15	18	64	16,374
Saginaw	182,472	35,841	916	811	8,019	12,356	228,059
St. Clair	134,109	2,804	558	302	1,029	2,066	138,802
St. Joseph	54,256	1,360	143	167	157	386	56,083
Sanilac	40,119	16	95	50	509	861	40,789
Schoolcraft	8,203	3	351	13	5	20	8,575
Shiawassee	70,273	67	317	148	335	818	71,140
Tuscola	55,838	323	184	116	500	1,006	56,961
Van Buren	60,206	5,041	468	119	980	1,499	66,814
Washtenaw	227,091	28,323	720	5,631	2,983	4,055	264,748
Wayne	1,457,914	829,983	6,671	15,177	28,146	46,318	2,337,891
Wexford	24,905	12	85	48	52	134	25,102
MICHIGAN	7,872,241	1,199,023	40,050	56,790	93,974	162,440	9,262,078

SOURCE: Bureau of the Census, tapes.

TABLE I-8. PERCENTAGE OF POPULATION 17 AND UNDER FOR MICHIGAN COUNTIES: CENSUS 1970 AND 1980

County	Percentage		County	Percentage	
	1970	1980		1970	1980
Alcona	32.7	26.09	Lake	32.3	26.69
Alger	36.9	30.12	Lapeer	40.1	35.68
Allegan	38.9	31.99	Leelanau	36.4	28.51
Alpena	40.7	30.79	Lenawee	36.5	31.31
Antrim	36.6	29.42	Livingston	40.2	34.36
Arenac	37.4	30.67	Luce	33.0	29.16
Baraga	35.6	30.96	Mackinac	38.6	29.89
Barry	37.0	31.46	Macomb	40.8	29.87
Bay	38.6	30.56	Manistee	35.7	27.89
Benzie	35.0	28.83	Marquette	33.7	28.04
Berrien	36.5	30.76	Mason	34.8	27.95
Branch	36.3	29.99	Mecosta	28.8	23.35
Calhoun	35.1	28.89	Menominee	36.3	30.13
Cass	36.2	30.72	Midland	41.2	32.20
Charlevoix	38.0	30.09	Misaukee	37.3	32.23
Cheboygan	38.3	30.50	Monroe	40.2	33.33
Chippewa	37.3	27.65	Montcalm	37.2	31.73
Clare	36.1	28.93	Montmorency	34.1	27.68
Clinton	41.6	34.46	Muskegon	39.0	30.74
Crawford	38.4	30.78	Newaygo	38.8	31.5[illegible]
Delta	37.7	31.22	Oakland	37.7	28.65
Dickinson	33.4	27.02	Oceana	38.1	32.38
Eaton	39.4	31.54	Ogemaw	35.5	29.09
Emmet	35.7	29.21	Ontonagon	38.2	30.17
Genesee	39.8	32.15	Osceola	37.3	31.78
Gladwin	36.3	29.48	Oscoda	33.3	28.05
Gogebic	31.0	24.58	Otsego	39.8	32.73
Grand Traverse	34.8	29.35	Ottawa	39.6	31.86
Gratiot	37.6	31.21	Presque Isle	38.6	29.78
Hillsdale	35.8	30.35	Roscommon	30.2	24.40
Houghton	[illegible]	22.94	Saginaw	39.9	32.56
Huron	37.7	30.36	St. Clair	37.7	31.83
Ingham	32.6	26.20	St. Joseph	35.5	30.64
Ionia	37.7	31.82	Sanilac	38.2	31.25
Iosco	36.7	28.64	Schoolcraft	36.9	29.50
Iron	29.9	23.63	Shiawassee	39.9	33.74
Isabella	32.0	24.78	Tuscola	39.5	33.41
Jackson	35.9	29.13	Van Buren	37.3	31.65
Kalamazoo	34.0	26.71	Washtenaw	30.0	24.24
Kalkaska	36.8	32.74	Wayne	34.9	29.33
Kent	37.3	29.58	Wexford	37.3	30.55
Keweenaw	26.2	20.63	MICHIGAN	36.6	29.71

SOURCE: Bureau of the Census, tapes.

TABLE I-9. PERCENTAGE OF POPULATION 65 AND OVER FOR MICHIGAN COUNTIES: CENSUS 1970 AND 1980

County	Percentage		County	Percentage	
	1970	1980		1970	1980
Alcona	17.1	20.56	Lake	20.6	21.[illegible]
Alger	11.1	13.02	Lapeer	7.7	7.14
Allegan	9.4	10.29	Leelanau	12.2	13.31
Alpena	8.5	11.76	Lenawee	9.2	10.20
Antrim	13.9	15.09	Livingston	7.7	7.02
Arenac	12.5	13.89	Luce	13.6	13.70
Baraga	12.9	15.33	Mackinac	12.2	15.01
Barry	10.1	10.12	Macomb	4.8	7.70
Bay	8.1	10.11	Manistee	13.5	15.55
Benzie	14.3	14.76	Marquette	8.0	8.83
Berrien	9.2	10.96	Mason	13.1	14.90
Branch	10.3	11.79	Mecosta	8.7	9.06
Calhoun	9.4	11.26	Menominee	13.1	14.14
Cass	9.8	10.92	Midland	5.4	7.28
Charlevoix	11.4	12.23	Missaukee	12.9	12.46
Cheboygan	11.8	13.97	Monroe	7.4	8.38
Chippewa	8.3	12.42	Montcalm	11.2	12.17
Clare	13.2	15.42	Montmorency	15.8	17.79
Clinton	6.9	7.55	Muskegon	8.5	10.70
Crawford	10.9	12.54	Newaygo	11.6	13.09
Delta	11.6	12.69	Oakland	6.6	8.87
Dickinson	15.8	16.84	Oceana	11.8	12.35
Eaton	7.1	7.95	Ogemaw	15.0	15.25
Emmet	12.1	12.53	Ontonagon	9.8	15.94
Genesee	6.5	7.96	Osceola	12.1	13.19
Gladwin	12.9	14.29	Oscoda	17.0	17.67
Gogebic	16.3	20.72	Otsego	9.5	10.90
Grand Traverse	10.9	10.75	Ottawa	7.6	8.72
Gratiot	10.1	11.68	Presque Isle	11.6	15.02
Hillsdale	11.3	12.26	Roscommon	17.2	19.45
Houghton	13.7	15.96	Saginaw	7.7	9.21
Huron	12.8	15.11	St. Clair	9.9	10.67
Ingham	6.8	7.44	St. Joseph	11.0	11.94
Ionia	9.7	9.62	Sanilac	12.0	13.91
Iosco	9.7	13.47	Schoolcraft	13.7	15.39
Iron	16.6	21.90	Shiawassee	8.1	8.68
Isabella	6.4	7.07	Tuscola	9.0	9.63
Jackson	9.2	9.93	Van Buren	11.6	12.17
Kalamazoo	7.7	8.90	Washtenaw	5.8	6.37
Kalkaska	14.6	11.65	Wayne	9.4	10.47
Kent	9.3	10.22	Wexford	12.1	13.17
Keweenaw	14.8	27.66	MICHIGAN	8.5	9.85

SOURCE: Bureau of the Census, tapes.

TABLE I-10. MARITAL STATUS OF PERSONS 15 YEARS OLD OR OLDER: CENSUS 1980

	Male				Female			
County	Married	Separated/ Divorced	Widowed	Never Married	Married	Separated/ Divorced	Widowed	Never Married
Alcona	2,622	213	144	790	2,629	204	608	575
Alger	2,226	241	88	980	2,205	202	442	645
Allegan	19,685	1,684	663	7,675	19,613	2,223	3,173	5,794
Alpena	7,590	644	290	3,403	7,603	851	1,599	2,693
Antrim	4,114	330	147	1,451	4,117	422	815	1,009
Arenac	3,617	300	164	1,387	3,608	337	702	1,007
Baraga	1,944	208	115	1,035	1,926	168	475	528
Barry	11,485	1,081	335	4,212	11,417	1,278	1,639	2,901
Bay	27,429	2,630	1,008	12,387	27,404	3,640	5,453	10,489
Benzie	2,796	245	111	1,027	2,800	306	565	825
Berrien	38,175	4,484	1,606	16,674	38,169	7,048	8,304	14,411
Branch	9,514	1,022	350	3,823	9,469	1,422	1,904	2,964
Calhoun	31,879	4,508	1,352	13,880	31,709	6,622	6,921	11,664
Cass	11,993	1,304	495	4,313	11,995	1,667	2,113	3,342
Charlevoix	4,803	415	179	1,954	4,805	590	966	1,457
Cheboygan	5,121	378	221	1,905	5,127	521	1,002	1,381
Chippewa	6,558	712	312	3,852	6,413	762	1,418	2,602
Clare	6,036	575	271	1,892	6,054	730	1,254	1,544
Clinton	13,247	1,012	308	5,459	13,249	1,383	1,732	4,113
Crawford	2,322	218	99	946	2,289	299	426	611
Delta	9171	675	399	3926	9212	926	2048	3004
Dickinson	6,390	483	364	2,289	6,365	590	1,640	1,762
Eaton	20,964	2,016	534	8,362	20,955	2,808	2,955	7,288
Emmet	5,308	461	205	2,420	5,270	726	1,193	2,047
Genesee	94,749	14,155	3,224	46,717	94,653	21,434	17,916	41,480
Gladwin	5,208	417	197	1,637	5,165	499	899	1,250
Gogebic	4,741	365	333	2,233	4,704	411	1,589	1,529
Grand Traverse	12,518	1,333	376	5,672	12,522	2,138	2,341	5,062
Gratiot	9,394	724	371	3,954	9,416	1,052	2,013	3,437
Hillsdale	10,148	902	356	4,001	10,154	1,213	1,863	3,177

TABLE I-10. MARITAL STATUS OF PERSONS 15 YEARS OLD OR OLDER: CENSUS 1980 (cont.)

County	Male				Female			
	Married	Separated/ Divorced	Widowed	Never Married	Married	Separated/ Divorced	Widowed	Never Married
Houghton	7,437	618	490	8,194	7,417	738	2,176	3,868
Huron	8,969	503	424	3,530	8,921	655	2,045	2,519
Ingham	52,004	7,723	1,558	41,961	51,966	12,295	9,471	39,390
Ionia	11,480	1,393	374	6,965	11,209	1.504	2,140	3,434
Iosco	7,210	582	325	2,807	7,166	746	1,306	1,653
Iron	3,526	257	228	1,279	3,536	304	1,090	892
Isabella	9,632	884	308	9,650	9,590	1,250	1,592	10,285
Jackson	34,881	5,733	1,329	16,625	33,513	5,698	6,635	11,547
Kalamazoo	44,474	5,753	1,415	27,687	44448	9,000	8,332	25,339
Kalkaska	2,734	251	99	847	2,724	288	437	596
Kent	97,805	10,762	3,579	47,510	97,713	16,916	19,197	44,805
Keweenaw	521	47	36	237	527	35	128	102
Lake	1,956	256	131	625	1,959	227	492	437
Lapeer	16,146	1,320	428	6,591	16,139	1,775	2,143	5,262
Leelanau	3,532	284	137	1,442	3,521	273	588	1,076
Lenawee	21,065	1,967	741	8,296	21,085	2,845	3,996	7,202
Livingston	23,848	2,116	581	9,850	23,789	2,561	2,853	7,164
Luce	1,487	127	84	821	1,495	212	370	521
Mackinac	2,473	254	114	998	2,474	234	527	790
Macomb	160,927	15,243	5,209	75,113	160,799	22,341	27,594	63,497
Manistee	5,546	478	302	2,338	5,555	635	1,366	1,784
Marquette	16,506	1,639	649	10,364	16,237	1,700	2,685	7,110
Mason	6,644	596	277	2,435	6,593	678	1,411	1,852
Mecosta	7,122	626	245	7,347	7,082	863	1,237	5,399
Memominee	6,312	444	301	2,689	6,314	504	1,385	1,971
Midland	17,623	1,385	420	7,413	17,540	2,005	2,317	5,795
Missaukee	2,573	162	99	837	2,575	174	410	600
Monroe	31,224	2,999	1,029	12,785	31,165	3,815	4,903	10,486
Montcalm	11,493	1,093	443	4,082	11,514	1,443	2,206	3,061
Montmorency	2,010	167	81	583	2,006	199	387	416

TABLE I-10. MARITAL STATUS OF PERSONS 15 YEARS OLD OR OLDER: CENSUS 1980 (cont.)

	Male				Female			
County	Married	Separated/ Divorced	Widowed	Never Married	Married	Separated/ Divorced	Widowed	Never Married
Muskegon	34,855	4,213	1,463	15,952	34,770	6,235	7,407	14,058
Newaygo	[illegible],611	800	337	2,949	8,598	888	1,660	2,348
Oakland	234,919	26,238	7,436	106,834	234,775	38,304	41,855	90,231
Oceana	5,340	413	199	2,003	5,351	507	1,033	1,502
Ogemaw	4,118	358	226	1,403	4,136	441	834	1,131
Ontonagon	2,395	213	127	1,075	2,385	166	558	630
Osceola	4,606	371	180	1,637	4,609	485	939	1,264
Oscoda	1,801	158	113	519	1,776	163	406	444
Otsego	3,548	258	131	1,399	3,528	380	642	1,145
Ottawa	37,973	2,182	917	15,787	37,937	3,319	5,146	13,388
Presque Isle	3,569	241	168	1,447	3,556	272	739	944
Roscommon	4,480	376	254	1,342	4,487	509	893	975
Saginaw	48,599	5,531	1,802	23,850	48,586	8,492	9,553	21,821
St. Clair	31,785	3,175	1,288	13,264	31,806	4,526	6,425	11,175
St. Joseph	13,569	1,338	451	4,801	13,583	1,943	2,605	3,689
Sanilac	10,024	641	422	3,877	10,019	909	2,013	2,777
Schoolcraft	2,119	146	120	723	2,120	191	506	652
Shiawassee	16,707	1,430	443	6,478	16,738	2,073	2,721	5,108
Tuscola	13,386	1,071	437	5,504	13,356	1,382	2,245	4,308
Van Buren	15,497	1,695	631	6,065	15,480	2,372	3,244	4,622
Washtenaw	50,858	7,584	1,416	45,214	50,520	10,738	7,645	38,233
Wayne	442,870	88,003	27,984	279,858	440,640	128,872	126,218	247,410
Wexford	6,095	531	232	2,103	6,110	810	1,307	1,782
MICHIGAN	2,008,613	256,408	82,830	1,036,241	2,002,455	368,362	413,981	879,031

SOURCE: Bureau of the Census, tapes.

TABLE I-11. NUMBER OF PERSONS PER HOUSEHOLD IN MICHIGAN, BY COUNTY: CENSUS 1970 AND 1980

County	Persons per household		County	Persons per household	
	1970	1980		1970	1980
Alcona	2.95	2.60	Lake	2.85	2.53
Alger	3.23	2.76	Lapeer	3.54	3.23
Allegan	3.40	2.95	Leelanau	3.24	2.77
Alpena	3.47	2.86	Lenawee	3.26	2.91
Antrim	3.18	2.80	Livingston	3.42	3.15
Arenac	3.23	2.86	Luce	3.17	2.78
Baraga	3.19	2.81	Mackinac	3.25	2.74
Barry	3.27	2.92	Macomb	3.63	3.00
Bay	3.37	2.87	Manistee	3.09	2.68
Benzie	3.04	2.77	Marquette	3.23	2.80
Berrien	3.19	2.80	Mason	3.07	2.67
Branch	3.13	2.80	Mecosta	3.06	2.83
Calhoun	3.10	2.60	Menominee	3.18	2.79
Cass	3.22	2.86	Midland	3.51	2.94
Charlevoix	3.27	2.80	Missaukee	3.21	2.91
Cheboygan	3.32	2.82	Monroe	3.54	3.09
Chippewa	3.30	2.73	Montcalm	3.18	2.85
Clare	3.10	2.72	Montmorency	2.94	2.66
Clinton	3.55	3.14	Muskegon	3.32	2.84
Crawford	3.21	2.79	Newaygo	3.28	2.86
Delta	3.28	2.84	Oakland	3.40	2.82
Dickinson	2.97	2.62	Oceana	3.29	2.93
Eaton	3.43	2.89	Ogemaw	3.08	2.72
Emmet	3.25	2.76	Ontonagon	3.25	2.75
Genesee	3.39	2.89	Osceola	3.20	2.86
Gladwin	3.18	2.77	Oscoda	2.92	2.68
Gogebic	2.86	2.52	Otsego	3.37	2.97
Grand Traverse	3.22	2.76	Ottawa	3.49	3.04
Gratiot	3.32	2.90	Presque Isle	3.28	2.82
Hillsdale	3.17	2.84	Roscommon	2.74	2.49
Houghton	2.88	2.64	Saginaw	3.45	2.96
Huron	3.27	2.81	St. Clair	3.27	2.92
Ingham	3.10	2.67	St. Joseph	3.09	2.81
Ionia	3.37	2.98	Sanilac	3.29	2.89
Iosco	3.22	2.69	Schoolcraft	3.18	2.78
Iron	2.75	2.45	Shiawassee	3.38	3.03
Isabella	3.35	2.93	Tuscola	3.41	3.05
Jackson	3.23	2.81	VanBuren	3.23	2.86
Kalamazoo	3.15	2.67	Washtenaw	3.05	2.62
Kalkaska	3.01	2.87	Wayne	3.17	2.80
Kent	3.25	2.78	Wexford	3.13	2.76
Keweenaw	2.72	2.34	MICHIGAN	3.27	2.84

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, General Population Characteristics, Michigan (Washington, D.C.: 1970), Final Report PC(1)-B24, Table 36; and special release.

TABLE I-12. PERCENTAGE OF POPULATION IN GROUP QUARTERS IN MICHIGAN, BY COUNTY CENSUS 1970 AND 1980

County	Percentage 1970	Percentage 1980	County	Percentage 1970	Percentage 1980
Alcona	0.7	0.9	Lake	0.1	0.1
Alger	2.2	2.0	Lapeer	6.5	2.2
Allegan	0.5	1.4	Leelanau	0.8	0.7
Alpena	0.9	1.3	Lenawee	3.2	2.8
Antrim	1.1	1.0	Livingston	2.1	1.5
Arenac	1.2	0.7	Luce	18.4	8.1
Baraga	2.9	3.1	Mackinac	1.1	0.8
Barry	1.6	1.4	Macomb	0.5	0.6
Bay	0.7	0.9	Manistee	0.6	1.0
Benzie	1.0	0.9	Marquette	9.3	7.2
Berrien	1.2	1.6	Mason	1.1	1.9
Branch	7.5	2.5	Mecosta	14.8	14.7
Calhoun	3.1	3.0	Menominee	1.2	1.1
Cass	0.6	0.5	Midland	1.0	2.2
Charlevoix	1.0	0.8	Missaukee	0.2	0.3
Cheboygan	1.1	0.6	Monroe	0.7	1.0
Chippewa	5.4	6.5	Montcalm	0.5	0.8
Clare	0.8	0.9	Montmorency	0.1	--
Clinton	0.5	0.3	Muskegon	0.9	1.8
Crawford	2.3	2.4	Newaygo	1.0	0.7
Delta	1.2	1.0	Oakland	1.1	1.0
Dickinson	1.8	1.5	Oceana	0.6	1.2
Eaton	1.1	1.3	Ogemaw	0.6	1.5
Emmet	2.5	2.8	Ontonagon	0.6	1.6
Genesee	0.9	0.8	Osceola	0.7	1.0
Gladwin	0.6	0.5	Oscoda	1.5	1.6
Gogebic	1.2	2.9	Otsego	2.1	2.5
Grand Traverse	6.2	3.6	Ottawa	2.3	2.4
Gratiot	4.2	4.4	Presque Isle	2.0	0.9
Hillsdale	2.6	2.8	Roscommon	0.8	0.9
Houghton	8.2	9.4	Saginaw	1.0	1.4
Huron	0.9	1.5	St. Clair	0.8	0.6
Ingham	8.6	6.5	St. Joseph	0.8	0.9
Ionia	5.8	6.6	Sanilac	0.5	1.2
Iosco	5.3	3.6	Schoolcraft	1.0	1.2
Iron	1.9	2.4	Shiawassee	0.3	0.6
Isabella	15.8	13.0	Tuscola	3.8	2.0
Jackson	4.7	5.3	Van Buren	0.6	1.0
Kalamazoo	7.0	5.1	Washtenaw	10.6	8.0
Kalkaska	0.2	0.4	Wayne	1.4	1.3
Kent	2.1	2.7	Wexford	1.1	1.1
Keweenaw	5.4	0.8	MICHIGAN	2.3	2.1

SOURCE: Bureau of the Census, U.S. Census of Population: 1970, General Population Characteristics, Michigan (Washington, D.C.: 1971), Final Report PC(1)-B24, Table 16; and special release.

TABLE I-13. PERCENTAGE OF PERSONS 5 YEARS OLD AND OVER LIVING IN A DIFFERENT STATE IN 1965 AND 1975, BY MICHIGAN COUNTY: CENSUS 1970 AND 1980

County	Percentage 1970	Percentage 1980	County	Percentage 1970	Percentage 1980
Alcona	3.2	4.0	Lake	5.0	4.9
Alger	5.6	5.0	Lapeer	2.7	2.8
Allegan	4.6	5.3	Leelanau	6.3	6.6
Alpena	4.6	2.5	Lenawee	7.9	5.2
Antrim	4.4	4.6	Livingston	5.8	4.4
Arenac	2.3	2.1	Luce	2.5	4.4
Baraga	3.2	4.0	Mackinac	4.7	5.9
Barry	3.9	4.0	Monroe	4.7	3.1
Bay	2.5	2.4	Manistee	4.7	3.6
Benzie	3.5	4.0	Marquette	13.5	13.8
Berrien	9.5	9.2	Mason	3.6	5.0
Branch	5.4	6.7	Mecosta	5.4	5.7
Calhoun	6.4	5.8	Menominee	6.8	8.8
Cass	11.1	10.5	Midland	7.7	8.4
Charlevoix	6.2	6.2	Missaukee	1.5	2.4
Cheboygan	6.3	3.7	Monroe	8.3	9.3
Chippewa	19.0	6.9	Montcalm	3.6	3.3
Clare	2.6	2.7	Montmorency	0.1	4.2
Clinton	3.4	2.9	Muskegon	4.1	4.3
Crawford	2.8	3.5	Newaygo	4.2	4.2
Delta	6.9	5.3	Oakland	7.0	5.7
Dickinson	6.8	6.9	Oceana	4.5	4.1
Eaton	5.0	5.6	Ogemaw	3.3	3.1
Emmet	4.2	5.6	Ontonagon	5.0	4.5
Genesee	5.4	4.2	Osceola	3.3	3.5
Gladwin	2.5	4.3	Oscoda	4.4	5.7
Gogebic	6.5	6.7	Otsego	7.4	2.4
Grand Traverse	4.6	8.4	Ottawa	5.7	6.0
Gratiot	4.2	2.8	Presque Isle	2.8	2.7
Hillsdale	8.2	6.8	Roscommon	3.2	3.8
Houghton	7.8	8.1	Saginaw	3.7	3.4
Huron	2.0	2.6	St. Clair	2.9	3.2
Ingham	9.4	7.3	St. Joseph	9.9	7.3
Ionia	3.0	3.0	Sanilac	2.4	2.1
Iosco	25.7	15.7	Schoolcraft	4.1	4.6
Iron	8.1	10.6	Shiawassee	3.6	3.1
Isabella	3.7	4.2	Tuscola	2.6	3.2
Jackson	5.5	5.4	Van Buren	8.6	7.0
Kalamazoo	7.2	6.8	Washtenaw	14.1	12.2
Kalkaska	3.2	5.2	Wayne	5.5	3.9
Kent	5.4	5.5	Wexford	3.4	4.6
Keweenaw	13.0	9.6	MICHIGAN	6.1	5.1

SOURCE: Bureau of the Census, special release.

TABLE I-14. PERCENTAGE OF HOUSEHOLDS CONSISTING OF MARRIED COUPLES, WITH CHILDREN; AND OF SINGLE PERSONS, LIVING ALONE: CENSUS 1980

County	Married couples with children	Single persons, living alone	County	Married couples with children	Single persons, living alone
Alcona	28.1	20.4	Lake	24.1	25.2
Alger	34.6	21.7	Lapeer	47.9	13.5
Allegan	39.3	17.0	Leelanau	33.9	18.7
Alpena	36.4	20.1	Lenawee	37.9	18.4
Antrim	34.1	18.4	Livingston	45.9	13.4
Arenac	34.9	18.4	Luce	34.3	20.3
Baraga	34.1	23.7	Mackinac	32.9	21.4
Barry	39.6	16.2	Macomb	38.6	17.2
Bay	36.3	21.1	Manistee	31.7	24.2
Benzie	33.8	18.8	Marquette	37.5	19.8
Berrien	31.9	21.3	Mason	32.3	22.1
Branch	34.6	20.0	Mecosta	31.2	18.7
Calhoun	30.8	22.7	Menominee	35.7	21.7
Cass	36.0	18.3	Midland	41.2	17.1
Charlevoix	35.2	20.6	Missaukee	39.1	17.0
Cheboygan	35.0	19.0	Monroe	42.8	15.8
Chippewa	32.3	22.1	Montcalm	35.8	19.4
Clare	30.8	19.6	Montmorency	29.7	19.6
Clinton	44.3	14.7	Muskegon	33.0	20.7
Crawford	34.1	19.8	Newaygo	36.6	19.5
Delta	37.3	21.1	Oakland	34.4	20.1
Dickinson	32.0	23.6	Oceana	38.2	18.7
Eaton	39.4	18.2	Ogemaw	32.2	20.1
Emmet	33.5	22.7	Ontonagon	34.6	22.0
Genesee	34.0	20.4	Osceola	36.4	19.7
Gladwin	32.9	19.0	Oscoda	30.4	20.2
Gogebic	26.3	27.4	Otsego	39.9	17.1
Grand Traverse	34.5	20.5	Ottawa	43.1	15.2
Gratiot	38.1	19.1	Presque Isle	35.4	20.0
Hillsdale	36.2	19.1	Roscommon	24.7	21.2
Houghton	26.0	25.6	Saginaw	35.6	19.6
Huron	34.7	21.3	St. Clair	36.9	19.6
Ingham	28.4	23.4	St. Joseph	35.6	20.0
Ionia	39.4	18.4	Sanilac	36.9	18.6
Iosco	34.6	20.4	Schoolcraft	33.2	20.4
Iron	25.7	25.6	Shiawassee	41.7	17.3
Isabella	33.1	18.3	Tuscola	41.8	16.8
Jackson	34.5	20.2	Van Buren	35.0	19.6
Kalamazoo	29.8	22.8	Washtenaw	28.3	24.1
Kalkaska	37.5	17.8	Wayne	26.8	24.4
Kent	33.2	21.8	Wexford	34.4	21.0
Keweenaw	19.9	27.4	TOTAL	33.0	21.1

SOURCE: Michigan Metropolitan Information Center, Center for Urban Studies, Michigan: 1980 County Profiles (Wayne State University: August 1982).

II. HOUSING

The U.S. Census of Housing is conducted on the occasion of the official population census. Since housing units must be located for the population count in any case, they also are counted at this time.

Each household is asked to answer several questions pertaining to its living quarters and these are the basis for the structural characteristics of housing units. Other data, such as number of housing units with Negro head of household, are by-products of the population census.

Reliable interim data on housing for states and their political subdivisions are not available on a regular basis. Selected statistics for U.S. regions are published regularly by the U.S. Bureau of the Census in its Current Housing Reports series.

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TABLE II-1. GENERAL HOUSING CHARACTERISTICS: CENSUS 1980

	Michigan	United States
Total housing units	3,589,912	88,411,263
Vacant seasonal & migratory	132,890	1,641,874
Year-round housing units	3,457,022	86,769,389
Tenure and vacancy status		
Owner-occupied housing units	2,321,883	51,794,545
Percent of occupied housing units	72.7	64.4
Renter-occupied housing units	873,330	28,595,128
Vacant housing units	261,809	6,379,716
For sale only	32,191	948,469
For rent	69,008	2,178,801
Held for occasional use	69,361	1,010,804
Other vacants	91,249	2,241,642
Year householder moved into unit		
Owner-occupied housing units	2,321,883	51,794,545
1979 to March 1980	262,663	6,111,867
1975 to 1978	611,777	13,402,102
1970 to 1974	411,263	9,404,786
1960 to 1969	518,046	11,152,581
1950 to 1959	293,485	6,690,075
1949 or earlier	224,649	5,033,134
Renter-occupied housing units	873,330	28,595,128
1979 to March 1980	387,111	12,184,750
1975 to 1978	307,548	9,367,149
1970 to 1974	94,348	3,384,266
1960 to 1969	50,437	2,236,304
1959 or earlier	33,886	1,422,659

SOURCE: Bureau of the Census, 1980 Census of Population and Housing, Supplementary Report, Provisional Estimates of Social, Economic, and Housing Characteristics (Washington, D.C.: 1982), PHC80-S1-1, Table H1.

TABLE II-2. PERCENTAGE OF MICHIGAN YEAR-ROUND HOUSING UNITS BUILT BETWEEN 1970 AND 1980, AND IN 1939 OR EARLIER, BY COUNTY: CENSUS 1980

	Year structure built			Year structure built	
County	1970 to March 1980	1939 or earlier	County	1970 to March 1980	1939 or earlier
Alcona	36.4	16.4	Lake	27.4	22.5
Alger	26.8	42.2	Lapeer	36.9	29.6
Allegan	27.7	36.2	Leelanau	36.6	27.3
Alpena	25.4	31.5	Lenawee	19.2	41.7
Antrim	35.2	32.3	Livingston	45.3	20.0
Arenac	32.5	22.6	Luce	29.6	30.0
Baraga	25.4	47.5	Mackinac	23.7	33.1
Barry	22.2	36.1	Macomb	28.0	8.5
Bay	22.0	34.4	Manistee	20.8	43.8
Benzie	32.9	34.9	Marquette	28.9	36.8
Berrien	18.8	29.9	Mason	23.1	39.0
Branch	20.4	43.2	Mecosta	33.1	25.4
Calhoun	16.1	38.2	Menominee	21.9	44.6
Cass	23.0	32.6	Midland	29.3	15.5
Charlevoix	33.7	36.6	Missaukee	31.6	35.8
Cheboygan	31.7	29.1	Monroe	26.0	29.9
Chippewa	21.5	35.6	Montcalm	24.1	39.3
Clare	33.5	15.2	Montmorency	37.2	13.9
Clinton	28.1	35.7	Muskegon	18.9	28.4
Crawford	46.4	13.1	Newaygo	27.6	30.6
Delta	24.5	45.1	Oakland	29.7	12.8
Dickinson	18.0	58.8	Oceana	26.2	38.9
Eaton	36.9	28.3	Ogemaw	30.8	15.3
Emmet	32.8	36.5	Ontonagon	17.1	48.5
Genesee	22.1	21.7	Osecola	29.6	36.4
Gladwin	35.0	13.5	Oscoda	32.3	13.9
Gogebic	12.2	64.4	Otsego	42.5	15.9
Grand Traverse	42.1	25.0	Ottawa	30.5	25.4
Gratiot	18.7	47.1	Presque Isle	26.9	33.5
Hillsdale	22.5	48.7	Roscommon	32.5	9.9
Houghton	13.1	70.0	Saginaw	23.0	28.2
Huron	19.9	40.3	St. Clair	23.5	34.0
Ingham	23.5	24.9	St. Joseph	23.9	39.4
Ionia	22.4	48.0	Sanilac	24.3	41.6
Iosco	23.8	14.1	Schoolcraft	18.9	42.4
Iron	16.7	57.6	Shiawassee	24.5	39.8
Isabella	32.1	27.6	Tuscola	28.0	37.7
Jackson	20.6	38.3	Van Buren	26.3	36.4
Kalamazoo	24.6	27.1	Washtenaw	27.0	20.5
Kalkaska	45.4	16.9	Wayne	10.0	32.2
Kent	24.0	30.9	Wexford	30.7	38.0
Keweenaw	9.9	73.3	MICHIGAN	22.1	27.6

SOURCE: Bureau of the Census, special release.

TABLE II-3. MEDIAN VALUE OF OWNER-OCCUPIED HOUSING UNITS IN MICHIGAN, BY COUNTY, CENSUS: 1970 AND 1980

County	Value		County	Value	
	1970	1980		1970	1980
Alcona	12,400	32,500	Lake	6,700	19,800
Alger	9,400	27,500	Lapeer	15,900	42,300
Allegan	12,700	36,900	Leelanau	16,300	48,600
Alpena	12,800	32,200	Lenawee	14,700	36,700
Antrim	11,500	35,000	Livingston	19,700	61,000
Arenac	9,600	32,300	Luce	9,100	26,000
Baraga	10,200	28,800	Mackinac	8,700	28,400
Barry	12,100	33,100	Macomb	22,700	50,600
Bay	15,200	35,800	Manistee	11,100	30,700
Benzie	10,700	32,100	Marquette	12,500	37,800
Berrien	15,200	33,900	Mason	11,500	29,800
Branch	12,000	30,200	Mecosta	11,200	32,200
Calhoun	13,800	30,000	Menominee	10,300	29,900
Cass	12,200	33,300	Midland	19,000	44,900
Charlevoix	11,800	34,400	Misaukee	9,200	28,200
Cheboygan	12,300	32,600	Monroe	17,600	45,700
Chippewa	8,900	25,500	Montcalm	10,300	27,400
Clare	9,900	26,300	Montmorency	10,100	29,200
Clinton	16,400	43,300	Muskegon	12,500	27,700
Crawford	12,500	31,400	Newago	10,600	28,400
Delta	11,700	33,500	Oakland	23,200	56,300
Dickinson	10,200	32,000	Oceana	12,200	28,000
Eaton	17,900	45,600	Ogemaw	11,100	27,700
Emmet	14,500	40,700	Ontonagon	9,000	20,800
Genesee	16,300	35,500	Osceola	8,800	26,200
Gladwin	10,400	29,900	Oscoda	10,100	27,400
Gogebic	6,300	17,400	Otsego	16,100	39,000
Grand Traverse	16,300	45,000	Ottawa	16,600	44,800
Gratiot	11,400	27,200	Presque Isle	12,400	37,700
Hillsdale	11,400	30,300	Roscommon	13,100	29,000
Houghton	6,400	21,400	Saginaw	16,300	36,200
Huron	11,500	31,200	St. Clair	14,600	37,800
Ingham	17,900	39,800	St. Joseph	12,200	32,400
Ionia	11,200	31,100	Sanilac	11,800	31,000
Iosco	13,400	31,300	Schoolcraft	8,700	24,700
Iron	7,700	23,800	Shiawassee	13,800	35,100
Isabella	14,500	37,500	Tuscola	12,300	35,500
Jackson	14,600	33,100	Van Buren	12,400	33,300
Kalamazoo	16,600	40,800	Washtenaw	23,300	60,800
Kalkaska	9,200	32,500	Wayne	18,100	32,600
Kent	16,000	38,900	Wexford	9,600	29,200
Keweenaw	5,000	14,400	MICHIGAN	13,600	39,000

SOURCE: Bureau of the Census, 1970 Census of Housing, Detailed Housing Characteristics, Michigan (Washington, D.C.: 1972), HC(1)-B24, Table 61 and 1980 Census of Housing Supplementary Reports Selected Housing Characteristics by States and Counties; 1980 (Washington, D.C.: 1981), HC80-S1-1, p 150.

NOTE: Applies to all family homes on less than 10 acres with no business property.

TABLE II-4. MEDIAN CONTRACT RENT OF RENTER-OCCUPIED HOUSING UNITS IN MICHIGAN, BY COUNTY, CENSUS: 1970 AND 1980

	Contract rent			Contract rent	
County	1970	1980	County	1970	1980
Alcona	64	136	Lake	53	109
Alger	57	125	Lapeer	87	190
Allegan	77	167	Leelanau	72	183
Alpena	78	162	Lenawee	88	189
Antrim	70	167	Livingston	112	242
Arenac	63	134	Luce	57	140
Baraga	55	122	Mackinac	66	139
Barry	77	167	Macomb	143	259
Bay	86	189	Manistee	58	146
Benzie	59	152	Marquette	79	193
Berrien	88	179	Mason	68	152
Branch	73	168	Mecosta	95	159
Calhoun	88	175	Menominee	58	151
Cass	76	156	Midland	116	217
Charlevoix	81	176	Misaukee	56	152
Cheboygan	72	156	Monroe	93	199
Chippewa	69	154	Montclam	66	153
Clair	72	153	Montmorency	51	142
Clinton	88	190	Muskegon	76	159
Crawford	78	166	Newaygo	68	150
Delta	67	152	Oakland	151	286
Dickinson	65	164	Oceana	66	139
Eaton	110	227	Ogemaw	66	146
Emmet	80	186	Ontonagon	57	124
Genessee	111	208	Osceola	63	141
Gladwin	64	147	Oscoda	57	128
Gogebic	50	113	Otsego	86	181
Grand Traverse	91	219	Ottawa	82	199
Gratiot	70	157	Presque Isle	65	141
Hillsdale	73	158	Roscommon	67	152
Houghton	65	160	Saginaw	93	197
Huron	63	149	St. Clair	84	201
Ingham	125	223	St. Joseph	81	172
Ionia	74	155	Sanilac	63	155
Iosco	80	161	Schoolcraft	54	140
Iron	53	112	Shiawassee	84	178
Isabella	112	177	Tuscola	69	159
Jackson	94	188	Van Buren	74	159
Kalamazoo	111	211	Washtewaw	144	271
Kalkaska	64	172	Wayne	84	166
Kent	88	190	Wexford	70	158
Keweenaw	30	123	MICHIGAN	77	196

SOURCE: Bureau of the Census, 1970 Census of Housing, Detailed Housing Characteristics, Michigan (Washington,D.C.: 1972), HC(1)-B24, Table 61 and 1980 Census of Housing Supplementary Reports Selected Housing Characteristics by States and Counties: 1980 (Washington, D.C.: 1981), HC80-S1-1, p 150.

NOTE: Applies to all family homes on less than 10 acres with no business property.

TABLE II-5. PERCENTAGES OF MICHIGAN YEAR-ROUND HOUSING UNITS LACKING COMPLETE PLUMBING FOR EXCLUSIVE USE, BY COUNTY, CENSUS: 1970 AND 1980

County	Percentage		County	Percentage	
	1970	1980		1970	1980
Alcona	22.4	12.0	Lake	36.7	7.5
Alger	36.4	10.3	Lapeer	7.3	1.6
Allegan	7.4	2.0	Leelanau	9.1	3.1
Alpena	8.1	3.2	Lenawee	5.7	2.5
Antrim	13.2	3.2	Livingston	4.4	1.1
Arenac	17.5	5.6	Luce	21.2	6.1
Baraga	39.3	11.8	Mackinac	22.7	7.1
Barry	7.5	2.5	Macomb	1.2	0.5
Bay	4.3	1.7	Manistee	11.7	4.6
Benzie	18.1	3.2	Marquette	12.1	3.5
Berrien	3.5	1.8	Mason	10.5	2.7
Branch	8.0	2.6	Mecosta	11.1	3.9
Calhoun	3.6	1.4	Menominee	15.9	3.9
Cass	6.6	1.7	Midland	5.3	2.0
Charlevoix	7.6	2.5	Missaukee	24.4	7.5
Cheboygan	12.7	3.3	Monroe	5.9	1.9
Chippewa	11.7	4.6	Montcalm	10.4	3.7
Clare	46.7	6.6	Montmorency	32.0	7.5
Clinton	4.9	1.3	Muskegon	2.9	1.3
Crawford	9.8	7.8	Newaygo	18.2	3.9
Delta	15.5	4.8	Oakland	1.3	0.6
Dickinson	10.1	3.0	Oceana	14.8	3.1
Eaton	4.0	1.3	Ogemaw	35.2	13.8
Emmet	12.9	4.0	Ontonagon	34.2	9.1
Genesee	2.4	1.1	Osceola	9.6	6.6
Gladwin	38.7	6.1	Oscola	42.6	15.3
Gogebic	13.8	7.1	Otsego	10.9	4.0
Grand Traverse	5.4	2.0	Ottawa	2.7	1.0
Gratiot	6.1	2.3	Presque Isle	13.7	4.2
Hillsdale	9.0	3.5	Roscommon	9.9	2.9
Houghton	21.1	8.8	Saginaw	3.6	1.2
Huron	9.7	2.9	St. Clair	6.0	2.1
Ingham	3.1	1.3	St. Joseph	5.2	1.6
Ionia	7.1	2.0	Sanilac	10.6	2.9
Iosco	13.1	7.1	Schoolcraft	21.1	7.0
Iron	18.8	4.2	Shiawassee	5.0	1.7
Isabella	7.5	2.4	Tuscola	9.7	2.6
Jackson	4.3	1.8	Van Buren	7.7	2.3
Kalamazoo	3.0	1.3	Washtenaw	2.4	1.6
Kalkaska	23.0	5.0	Wayne	2.3	1.5
Kent	2.3	1.1	Wexford	11.3	3.7
Keweenaw	35.4	14.8	MICHIGAN	4.3	1.8

SOURCE: Bureau of the Census, _1970 Census of Housing, Detailed Housing Characteristics, Michigan_ (Washington, D.C.: 1972), HC(1)-B24, Table 60 and _1980 Census of Housing Supplementary Reports Selected Housing Characteristics by States and Counties: 1980_ (Washington D.C.: 1981), HC80-S1-1, p 150.

TABLE II-6. MEDIAN NUMBER OF ROOMS IN MICHIGAN YEAR-ROUND HOUSING UNITS, BY COUNTY, CENSUS: 1970 AND 1980

	Median number of rooms			Median number of rooms	
County	1970	1980	County	1970	1980
Alcona	4.7	4.5	Lake	4.3	4.5
Alger	4.7	5.0	Lapeer	5.5	5.7
Allegan	5.5	5.5	Leelanau	5.3	5.3
Alpena	5.2	5.3	Lenawee	5.7	5.6
Antrim	5.3	5.2	Livingston	5.4	5.9
Arenac	5.2	5.0	Luce	5.0	5.1
Baraga	4.8	5.0	Mackinac	4.7	5.0
Barry	5.5	5.5	Macomb	5.3	5.4
Bay	5.3	5.3	Manistee	5.3	5.3
Benzie	5.3	5.2	Marquette	5.0	5.1
Berrien	5.2	5.3	Mason	5.2	5.3
Branch	5.7	5.6	Mecosta	4.9	4.9
Calhoun	5.4	5.4	Menominee	5.2	5.3
Cass	5.2	5.4	Midland	5.4	5.6
Charlevoix	5.3	5.3	Misaukee	5.4	5.2
Cheboygan	5.2	5.2	Monroe	5.5	5.6
Chippewa	5.1	5.1	Montcalm	5.4	5.4
Clare	4.0	4.7	Montmorency	4.4	4.6
Clinton	5.7	5.9	Muskegon	5.1	5.2
Crawford	4.9	4.7	Newaygo	5.0	5.2
Delta	5.2	5.2	Oakland	5.5	5.6
Dickinson	5.2	5.2	Oceana	5.4	5.4
Eaton	5.8	5.7	Ogemaw	4.3	4.6
Emmet	5.4	5.3	Ontonagon	4.9	5.1
Genesee	5.2	5.3	Osceola	5.7	5.3
Gladwin	4.4	4.5	Oscoda	4.2	4.3
Gogebic	5.2	5.2	Otsego	4.8	5.2
Grand Traverse	5.3	5.3	Ottawa	5.5	5.7
Gratiot	5.8	5.8	Presque Isle	5.2	5.2
Hillsdale	5.9	5.7	Roscommon	4.3	4.5
Houghton	5.5	5.4	Saginaw	5.4	5.4
Huron	5.6	5.5	St. Clair	5.4	5.5
Ingham	5.1	5.1	St. Joseph	5.5	5.5
Ionia	5.8	5.8	Sanilac	5.6	5.6
Iosco	4.7	4.7	Schoolcraft	5.1	5.3
Iron	5.2	5.2	Shiawassee	5.6	5.7
Isabella	5.2	5.2	Tuscola	5.5	5.6
Jackson	5.4	5.5	Van Buren	5.3	5.3
Kalamazoo	5.2	5.3	Washtenaw	5.0	5.0
Kalkaska	4.8	4.9	Wayne	5.2	5.3
Kent	5.5	5.5	Wexford	5.3	5.2
Keweenaw	5.4	5.3	MICHIGAN	5.3	5.4

SOURCE: Bureau of the Census, 1970 Census of Housing, Detailed Housing Characteristics, Michigan (Washington, D.C.: 1972), HC(1)-B24, Table 60 and 1980 Census of Housing Supplementary Reports Selected Housing Characteristics by States and Counties: 1980 (Washington, D.C.: 1981), HC80-S1-1,p 150.

TABLE II-7. SELECTED STRUCTURAL CHARACTERISTICS OF MICHIGAN HOUSING, BY COUNTY: CENSUS 1980

	Percentage with						
	5 or more units in structure	Outside water source[a]	Public sewer	Central heating system	Air conditioning	1 or more bathrooms	3 or more bedrooms
Alcona	3.5	7.8	7.3	64.3	2.6	86.7	37.1
Alger	4.6	39.9	33.2	68.0	2.2	88.1	49.2
Allegan	4.1	31.2	29.6	85.5	20.9	97.0	60.2
Alpena	6.4	50.4	50.2	86.3	3.6	96.5	58.3
Antrim	3.0	29.7	15.2	68.6	4.2	95.7	55.7
Arenac	2.6	22.7	14.0	73.0	8.6	93.5	47.9
Baraga	7.5	48.5	44.4	65.6	8.8	85.8	50.8
Barry	2.3	23.3	22.3	80.2	15.8	96.2	57.3
Bay	8.0	82.5	62.0	91.3	27.0	97.6	58.1
Benzie	0.9	30.7	25.8	77.6	3.9	96.0	52.7
Berrien	9.7	56.9	63.7	89.0	42.7	97.8	53.4
Branch	4.4	37.8	35.7	84.2	19.6	96.8	57.6
Calhoun	9.9	61.2	50.8	91.7	30.4	97.8	53.4
Cass	3.6	23.4	21.3	81.6	33.8	97.3	56.3
Charlevoix	5.6	49.0	40.0	82.7	3.2	97.3	56.1
Cheboygan	4.3	24.2	21.9	74.1	3.7	95.9	51.6
Chippewa	6.6	56.5	51.3	82.2	2.3	94.8	53.1
Clare	3.9	19.7	21.3	70.5	8.6	91.7	37.7
Clinton	3.7	33.5	47.1	90.3	24.3	98.2	68.8
Crawford	4.2	15.6	16.2	68.9	4.7	90.7	41.4
Delta	6.9	53.1	50.8	79.9	3.5	94.6	53.6
Dickinson	4.0	78.6	67.6	86.5	11.2	96.4	55.7
Eaton	15.2	58.5	60.4	91.8	34.7	98.2	60.3
Emmett	8.2	46.2	44.6	80.9	3.8	95.4	56.4
Genesee	10.9	65.1	84.7	94.3	32.5	98.6	56.0
Gladwin	2.0	13.0	12.5	65.3	9.3	92.4	35.8
Gogebic	4.8	78.9	70.7	81.1	4.1	90.6	50.6
Grand Traverse	7.6	39.3	38.2	87.6	8.8	97.8	56.0
Gratiot	4.6	47.7	49.8	82.7	17.6	97.5	61.7
Hillsdale	4.1	32.8	31.1	86.6	15.8	95.4	60.2
Houghton	11.7	75.9	63.6	79.9	3.4	89.2	55.7
Huron	3.0	37.0	29.1	80.6	12.7	95.4	59.4
Ingham	22.4	86.2	88.1	94.7	40.5	98.4	48.7
Ionia	4.8	47.6	46.0	85.3	21.1	97.3	62.7
Iosco	7.1	34.4	30.3	69.6	3.6	92.0	42.9
Iron	4.4	91.5	59.9	88.3	4.3	95.7	52.7
Isabella	14.4	44.9	45.4	85.7	22.2	97.1	51.8
Jackson	7.9	46.9	59.4	92.5	26.7	97.6	56.0
Kalamazoo	17.8	70.8	54.3	93.9	39.6	98.4	52.5
Kalaska	2.4	13.1	13.7	71.3	4.5	95.4	50.9
Kent	12.6	79.4	79.4	94.2	32.6	98.6	56.2
Keweenaw	0.9	80.7	30.5	44.5	0.6	79.3	49.6
Lake	0.5	6.2	2.3	60.0	5.5	89.1	32.4
Lapeer	4.4	27.4	25.2	85.7	16.3	98.1	67.2
Leelanau	7.6	16.1	17.8	76.6	3.9	96.3	58.1

TABLE II-7. SELECTED STRUCTURAL CHARACTERISTICS OF MICHIGAN HOUSING, BY COUNTY: CENSUS 1980 (cont.)

	Percentage with						
	5 or more units in structure	Outside water source[a]	Public sewer	Central heating system	Air condi- tioning	1 or more bathrooms	3 or more bedrooms
Lenawee	5.3	47.3	50.8	89.0	28.0	96.9	61.0
Livingston	6.4	22.3	22.3	91.6	26.4	98.4	68.4
Luce	3.8	47.7	45.9	65.8	2.1	93.6	50.9
Mackinac	4.8	37.8	30.9	61.4	0.8	92.5	51.1
Macomb	13.9	93.3	89.4	97.1	50.0	99.3	65.5
Mainstee	3.2	40.7	35.9	77.5	5.8	94.2	52.1
Marquette	12.9	73.4	68.3	85.2	5.4	95.9	51.4
Mason	6.0	41.8	39.8	80.3	6.7	96.1	52.8
Mecosta	6.9	23.4	25.6	75.1	8.7	94.7	45.3
Menominee	4.5	46.0	46.5	81.3	11.1	95.2	56.6
Midland	9.2	58.9	54.6	88.6	29.6	97.8	62.5
Missaukee	0.6	14.1	0.8	72.3	3.7	91.8	55.7
Monroe	7.9	61.2	57.6	90.4	37.7	97.3	62.0
Montcalm	3.4	31.2	29.2	78.0	14.5	95.7	53.5
Montmorency	3.1	5.6	6.9	52.4	3.5	90.2	36.5
Muskegon	8.3	63.0	57.7	88.7	15.3	98.3	53.0
Newaygo	1.5	19.7	19.9	71.6	9.4	95.0	50.1
Oakland	17.6	81.3	80.5	96.8	53.0	99.2	59.1
Oceana	1.1	25.9	22.8	75.6	6.4	95.8	56.1
Ogemaw	1.3	7.0	8.6	63.2	4.0	84.7	34.2
Ontonagon	2.1	48.8	42.1	78.4	5.5	88.7	56.9
Osceola	2.2	25.0	23.8	71.5	6.0	92.1	54.0
Oscoda	2.8	2.9	2.8	41.0	4.8	82.5	30.9
Otsego	3.5	21.4	20.9	79.6	4.5	94.7	57.8
Ottawa	5.1	53.7	40.8	93.4	20.2	98.6	65.2
Presque Isle	2.3	34.4	27.5	76.7	3.4	95.2	58.1
Roscommon	34	6.6	27.8	69.7	3.8	96.5	33.7
Saginaw	9.6	81.6	75.8	90.3	31.5	98.5	59.0
St. Clair	6.3	68.[illegible]	63.2	88.0	19.8	97.5	57.8
St. Joseph	5.6	47.5	41.1	86.6	31.4	97.4	57.5
Sanilac	2.1	30.2	26.9	78.0	11.3	96.4	61.1
Schoolcarft	4.9	46.4	43.7	68.2	1.0	92.2	54.0
Shiawassee	4.2	46.8	48.7	90.1	24.2	98.0	63.8
Tuscola	2.9	31.8	29.5	83.2	17.5	96.9	62.9
Van Buren	6.1	36.0	33.7	81.4	25.1	97.1	54.4
Washtenaw	30.0	81.6	81.7	96.7	48.1	98.3	48.0
Wayne	16.1	99.4	98.1	95.2	42.7	98.0	53.9
Wexford	4.4	41.3	46.1	77.9	6.0	95.1	52.1
MICHIGAN	12.5	72.5	71.4	91.2	34.3	97.7	56.0

SOURCE: Bureau of the Census, special release.

a. Source of water by public system or private company.

TABLE II-8. SELECTED CHARACTERISTICS OF FHA-INSURED HOMES UNDER SECTION 203 IN MICHIGAN AND THE UNITED STATES: 1974-1980

Year	New homes		Existing homes	
	Michigan	United States	Michigan	United States
	Median property value (dollars)			
1974	28,835	27,603	18,983	22,123
1975	31,761	32,808	20,231	26,051
1976	32,324	35,278	21,439	27,011
1977	34,882	37,487	23.101	29,252
1978	39,636	41,863	22,871	33,425
1979	43,611	50,406	26,732	38,442
1980	n.a.	56,042	34,389	44,054
	Average construction cost per square foot			
1974	22.17	18.68	--	--
1975	24.26	20.49	--	--
1976	25.92	21.69	--	--
1977	27.80	23.39	--	--
1978	30.69	25.95	--	--
1979	35.78	29.87	--	--
1980	38.96	34.40	--	--
	Average market price of site			
1974	5,164	5,372	3,065	4,451
1975	5,664	6,329	3,257	5,423
1976	6,102	6,963	3,261	5,641
1977	6,169	7,279	3,438	5,878
1978	6,901	7,993	3,409	7,052
1979	7,482	9,816	3,920	8,145
1980	6,695	11,809	5,163	10,105
	Median improved living area (square feet)			
1974	1,068	1,213	910	1,067
1975	1,059	1,309	919	1,118
1976	1,064	1,313	923	1,098
1977	1,043	1,294	934	1,097
1978	1,041	1,316	899	1,103
1979	1,044	1,351	921	1,111
1980	1,023	1,297	939	1,111
	Percentage with full basement			
1974	84.3	15.3	73.3	32.9
1975	76.0	15.3	74.7	26.9
1976	73.3	11.8	71.8	23.2
1977	84.4	11.4	73.5	23.0
1978	91.9	11.8	71.9	23.4
1979	92.4	9.6	71.3	25.4
1980	84.7	12.4	68.4	28.0

SOURCE: Federal Housing Administration, FHA Homes, 1974 through 1980 (Washington, D.C.: annually), Tables 5S, 7S, 8S, and 14S.

n.a. not available - inadequate sample.

TABLE II-9. PERCENTAGE OF TOTAL HOUSING UNITS THAT ARE SEASONAL AND MIGRATORY, CENSUS: 1970 AND 1980

County	Percentage		County	Percentage	
	1970	1980		1970	1980
Alcona	42.7	29.7	Lake	36.9	26.8
Alger	12.0	22.3	Lapeer	3.4	3.0
Allegan	10.0	9.1	Leelanau	20.1	20.4
Alpena	5.4	10.8	Lenawee	6.7	0.6
Antrim	18.2	22.2	Livingston	9.8	5.2
Arenac	26.7	2.7	Luce	19.7	31.9
Baraga	6.8	20.7	Mackinac	30.5	42.6
Barry	11.0	7.7	Macomb	0.1	0.1
Bay	1.4	0.5	Manistee	16.2	19.6
Benzie	36.7	35.0	Marquette	8.8	12.0
Berrien	7.6	4.9	Mason	10.8	9.7
Branch	8.7	11.5	Mecosta	19.3	5.8
Calhoun	0.8	0.5	Menominee	3.8	10.8
Cass	9.7	13.9	Midland	1.1	1.0
Charlevoix	17.7	20.7	Missaukee	25.1	33.7
Cheboygan	32.5	22.6	Monroe	0.2	0.5
Chippewa	16.1	23.8	Montcalm	15.0	11.2
Clare	13.6	38.5	Montmorency	28.0	37.1
Clinton	0.1	0.2	Muskegon	1.3	1.0
Crawford	41.9	23.9	Newaygo	16.9	25.6
Delta	6.6	11.7	Oakland	0.7	0.5
Dickinson	8.3	8.9	Oceana	22.3	27.2
Eaton	0.8	0.3	Ogemaw	16.3	1.2
Emmet	22.8	17.6	Ontonagon	9.9	19.6
Genesee	0.4	0.3	Osceola	17.1	16.3
Gladwin	19.4	11.4	Oscoda	37.8	36.2
Gogebic	12.6	11.5	Otsego	15.1	31.2
Grand Traverse	15.8	7.6	Ottawa	2.9	2.2
Gratiot	1.2	0.4	Presque Isle	22.0	30.5
Hillsdale	5.1	4.7	Roscommon	42.9	27.7
Houghton	10.3	12.0	Saginaw	0.3	0.1
Huron	18.2	15.8	St. Clair	2.1	3.2
Ingham	0.1	0.1	St. Joseph	7.9	5.5
Ionia	2.5	2.7	Sanilac	15.9	15.4
Iosco	22.9	10.3	Schoolcraft	16.4	26.5
Iron	11.4	19.9	Shiawassee	0.2	0.2
Isabella	2.4	4.5	Tuscola	2.1	3.1
Jackson	2.1	3.7	Van Buren	16.9	11.8
Kalamazoo	0.7	0.6	Washtenaw	1.3	0.8
Kalkaska	15.1	29.7	Wayne	0.0	0.0
Kent	1.0	1.1	Wexford	6.4	8.0
Keweenaw	44.1	45.4	TOTAL	3.7	3.9

SOURCE: Bureau of the Census, *1970 Census of Housing, Detailed Housing Characteristics, Michigan* (Washington, D.C.: 1972), HC(1)-B24, Table 60 and *1980 Census of Housing Supplementary Reports Selected Housing Characteristics by States and Counties: 1980* (Washington, D.C.: 1981), HC80-S1-1, p. 150.

TABLE II-10. PERCENTAGE OF YEAR-ROUND HOUSING UNITS THAT ARE VACANT, CENSUS: 1970 AND 1980

County	Percentage		County	Percentage	
	1970	1980		1970	1980
Alcona	33.3	43.6	Lake	52.6	60.4
Alger	24.5	16.8	Lapeer	8.8	5.0
Allegan	8.5	6.0	Leelanau	34.2	30.4
Alpena	11.4	10.6	Lenawee	6.0	10.4
Antrim	34.9	31.7	Livingston	9.0	5.4
Arenac	12.9	31.9	Luce	13.1	10.0
Baraga	18.2	13.5	Mackinac	29.6	15.9
Barry	12.4	12.6	Macomb	2.7	2.8
Bay	4.1	4.2	Mainstee	17.4	13.6
Benzie	24.8	17.9	Marquette	8.9	8.8
Berrien	7.9	7.8	Mason	22.3	18.9
Branch	11.5	12.0	Mecosta	13.0	23.8
Calhoun	4.4	5.2	Menominee	14.2	9.9
Cass	14.4	7.2	Midland	7.8	6.1
Charlevoix	20.2	20.0	Missaukee	21.1	15.5
Cheboygan	18.0	24.7	Monroe	2.9	4.4
Chippewa	15.2	20.6	Montcalm	11.2	10.8
Clare	51.7	23.8	Montmorency	48.8	43.2
Clinton	3.4	3.6	Muskegon	4.5	5.4
Crawford	15.1	41.8	Newaygo	21.7	10.9
Delta	12.2	9.1	Oakland	3.3	4.3
Dickinson	9.1	6.9	Oceana	15.2	10.6
Eaton	3.9	4.1	Ogemaw	50.4	53.6
Emmet	20.0	21.4	Ontonagon	17.3	13.1
Genesee	4.0	4.9	Osceola	17.9	21.0
Gladwin	41.0	40.1	Oscoda	48.8	46.0
Gogebic	8.4	15.3	Otsego	30.8	21.2
Grand Traverse	12.2	12.1	Ottawa	3.6	4.4
Gratiot	6.7	6.3	Presque Isle	13.8	13.8
Hillsdale	10.9	11.7	Roscommon	52.4	49.7
Houghton	12.4	10.5	Saginaw	3.8	4.2
Huron	13.8	15.0	St. Clair	10.5	5.8
Ingham	4.9	4.3	St. Joseph	7.4	6.8
Ionia	7.6	5.3	Sanilac	15.4	10.8
Iosco	31.8	37.1	Schoolcraft	20.6	16.7
Iron	19.1	12.4	Shiawassee	4.0	4.3
Isabella	7.9	7.5	Tuscola	9.8	5.8
Jackson	4.1	5.0	Van Buren	13.1	9.0
Kalamazoo	4.3	4.9	Washtenaw	4.0	4.6
Kalkaska	32.2	18.2	Wayne	4.5	5.8
Kent	5.1	26.8	Wexford	15.1	15.6
Keweenaw	17.4	29.0	TOTAL	6.8	7.3

SOURCE: Bureau of the Census, 1070 Census of Housing, Detailed Housing Characteristics, Michigan (Washington, D.C.: 1972), HC(1)-B24, Table 60 and 1980 Census of Housing Supplementary Reports Selected Housing Characteristics by States and Counties: 1980 (Washington, D.C.: 1981), HC80-S1-1, p. 150.

TABLE II-11. PERCENTAGE OF YEAR-ROUND HOUSING UNITS THAT ARE OWNER OCCUPIED, CENSUS: 1970 AND 1980

County	Percentage		County	Percentage	
	1970	1980		1970	1980
Alcona	59.7	49.3	Lake	41.1	33.5
Alger	59.6	66.4	Lapeer	73.5	78.1
Allegan	75.5	76.9	Leelanau	54.5	55.6
Alpena	73.4	72.6	Lenawee	73.3	69.7
Antrim	56.1	57.7	Livingston	74.0	78.1
Arenac	75.1	58.7	Luce	70.9	74.8
Baraga	65.0	67.8	Mackinac	56.1	67.2
Barry	74.3	73.8	Macomb	80.9	77.2
Bay	78.0	75.9	Manistee	68.3	68.7
Benzie	62.8	67.6	Marquette	59.6	58.6
Berrien	67.7	64.9	Mason	63.1	63.6
Branch	69.5	68.2	Mecosta	61.7	54.2
Calhoun	73.7	69.3	Menominee	70.8	72.6
Cass	69.9	74.5	Midland	75.4	74.0
Charlevoix	65.7	63.2	Missaukee	68.9	73.3
Cheboygan	67.9	62.0	Monroe	77.1	75.3
Chippewa	53.2	60.2	Montcalm	73.1	72.0
Clare	42.1	62.9	Montmorency	44.5	49.5
Clinton	82.2	81.3	Muskegon	75.2	71.5
Crawford	68.9	48.5	Newaygo	66.5	75.0
Delta	68.6	70.7	Oakland	75.7	71.1
Dickinson	76.2	75.6	Oceana	70.3	74.3
Eaton	77.3	70.5	Ogemaw	41.3	38.9
Emmet	63.0	59.0	Ontonagon	68.4	72.2
Genesee	74.4	71.1	Osceola	68.5	65.5
Gladwin	52.5	50.9	Oscoda	44.7	47.0
Gogebic	73.0	69.0	Otsego	58.5	64.5
Grand Traverse	68.7	66.2	Ottawa	79.9	78.7
Gratiot	73.0	73.0	Presque Isle	75.0	75.0
Hillsdale	71.2	70.4	Roscommon	40.8	43.0
Houghton	64.8	63.4	Saginaw	74.8	71.1
Huron	71.4	70.2	St. Clair	71.0	73.7
Ingham	61.2	56.0	St. Joseph	73.4	72.3
Ionia	74.7	74.4	Sanilac	70.3	74.1
Iosco	44.3	44.1	Schoolcraft	64.0	67.3
Iron	67.0	72.2	Shiawassee	77.7	77.1
Isabella	64.0	62.0	Tuscola	75.3	78.6
Jackson	75.7	71.5	Van Buren	67.4	70.1
Kalamazoo	68.4	62.4	Washtenaw	54.9	51.0
Kalkaska	58.5	69.3	Wayne	64.8	62.7
Kent	71.8	68.3	Wexford	68.5	67.1
Keweenaw	67.6	59.8	TOTAL	69.4	67.3

SOURCE: Bureau of the Census, 1970 Census of Housing, Detailed Housing Characteristics, Michigan (Washington, D.C.: 1972), HC(1)-B24, Table 60 and 1980 Census of Housing Supplementary Reports Selected Housing Characteristics by States and Counties: 1980 (Washington, D.C.: 1981), HC80-S1-1, p. 150.

TABLE II-12. PERCENTAGE OF YEAR-ROUND HOUSING UNITS THAT ARE RENTER OCCUPIED, CENSUS: 1970 AND 1980

County	Percentage		County	Percentage	
	1970	1980		1970	1980
Alcona	7.0	7.0	Lake	6.4	6.1
Alger	15.9	16.9	Lapeer	17.7	16.8
Allegan	16.1	17.1	Leelanau	11.2	13.9
Alpena	15.2	16.8	Lenawee	20.7	19.9
Antrim	8.9	11.0	Livingston	17.0	15.6
Arenac	12.0	9.4	Luce	15.9	15.2
Baraga	16.8	18.7	Mackinac	14.3	16.9
Barry	13.3	13.6	Macomb	16.4	20.0
Bay	17.9	19.9	Manistee	14.4	17.7
Benzie	12.4	14.5	Marquette	31.5	32.7
Berrien	24.4	27.2	Mason	14.7	17.5
Branch	19.1	19.8	Mecosta	25.4	21.9
Calhoun	21.9	25.4	Menominee	15.0	17.6
Cass	15.7	18.3	Midland	16.8	19.9
Charlevoix	14.1	16.8	Missaukee	10.0	11.2
Cheboygan	14.2	13.3	Monroe	20.1	20.3
Chippewa	31.6	19.1	Montcalm	15.7	17.2
Clare	6.2	13.3	Montmorency	6.7	7.3
Clinton	14.4	15.0	Muskegon	20.3	23.1
Crawford	16.0	9.6	Newaygo	11.8	14.2
Delta	19.2	20.2	Oakland	21.0	24.5
Dickinson	14.7	17.3	Oceana	14.5	15.1
Eaton	18.8	25.4	Ogemaw	8.3	7.4
Emmet	17.0	19.7	Ontonagon	14.3	14.6
Genesee	21.7	24.0	Osceola	13.6	13.5
Gladwin	6.6	8.9	Oscoda	6.5	7.1
Gogebic	18.6	15.7	Otsego	10.8	14.2
Grand Traverse	19.1	21.7	Ottawa	16.5	16.9
Gratiot	20.3	20.7	Presque Isle	11.2	11.2
Hillsdale	17.9	17.9	Roscommon	6.7	7.3
Houghton	22.8	26.0	Saginaw	21.4	24.8
Huron	14.8	14.8	St. Clair	18.5	20.5
Ingham	33.8	39.7	St. Joseph	19.2	20.6
Ionia	17.8	20.2	Sanilac	14.2	15.1
Iosco	23.9	18.8	Schoolcraft	15.4	16.1
Iron	13.9	15.4	Shiawassee	18.3	18.6
Isabella	28.1	30.5	Tuscola	14.9	15.5
Jackson	20.2	23.4	Van Buren	19.5	20.9
Kalamazoo	27.3	32.6	Washtenaw	41.1	44.4
Kalkaska	9.2	12.5	Wayne	30.7	31.6
Kent	23.2	26.8	Wexford	16.5	17.3
Keweenaw	15.0	11.2	TOTAL	23.8	25.3

SOURCE: Bureau of the Census, 1970 Census of Housing, Detailed Housing Characteristics, Michigan (Washington, D.C.: 1972), HC(1)-B24, Table 60 and 1980 Census of Housing Supplementary Reports Selected Housing Characteristics by States and Counties: 1980 (Washington, D.C.: 1981), HC80-S1-1, p. 150.

TABLE II-13. NUMBER OF OCCUPIED HOUSING UNITS IN MICHIGAN COUNTIES, BY NUMBER OF UNITS AT ADDRESS: CENSUS 1980

	Owner Occupied					Renter Occupied				
	Number of units at address					Number of units at address				
	1	2 to 9	10 or more	Mobile home or trailer	Total	1	2 to 9	10 or more	Mobile home or trailer	Total
Alcona	2,922	84	6	240	3,252	329	59	22	53	463
Alger	2,295	118	4	197	2,614	316	211	90	48	665
Allegan	19,429	530	44	2,268	22,271	2,844	1,281	375	461	4,961
Alpena	8,184	336	12	524	9,056	853	906	202	134	2,095
Antrim	4,261	165	2	371	4,799	606	197	24	97	924
Arenac	3,795	81	4	518	4,398	443	121	31	106	701
Baraga	1,990	94	2	210	2,296	324	217	65	27	633
Barry	11,982	250	9	796	13,037	1,488	620	85	203	2,396
Bay	30,025	856	16	1,874	32,771	3,809	2,981	1,510	277	8,577
Benzie	2,864	87	8	340	3,299	459	154	1	95	709
Berrien	38,997	1,472	51	1,943	42,463	9,210	5,389	2,779	435	17,813
Branch	9,529	256	2	1,070	10,857	1,692	906	223	336	3,157
Calhoun	34,795	868	21	1,711	37,395	7,097	3,684	2,528	419	13,728
Cass	12,366	350	9	1,116	13,841	2,161	613	229	392	3,395
Charlevoix	4,818	159	27	570	5,574	893	392	94	103	1,482
Cheboygan	5,268	147	18	561	5,994	732	311	94	146	1,283
Chippewa	6,301	361	10	865	7,537	1,119	936	228	111	2,394
Clare	6,279	124	6	757	7,166	903	288	161	168	1,520
Clinton	13,544	295	17	1,131	14,987	1,583	725	236	224	2,768
Crawford	2,387	99	3	276	2,765	320	146	23	61	550
Delta	9,203	531	10	811	10,555	1,207	1,177	498	131	3,013
Dickinson	7,205	242	4	310	7,761	856	668	205	46	1,775
Eaton	20,503	584	25	1,056	22,168	3,511	1,710	2,612	136	7,969
Emmet	5,262	222	31	562	6,077	939	642	307	142	2,030
Genesee	106,448	2,827	85	6,234	115,594	19,883	10,210	7,505	1,449	39,047

TABLE II-13. NUMBER OF OCCUPIED HOUSING UNITS IN MICHIGAN COUNTIES, BY NUMBER OF UNITS AT ADDRESS: CENSUS 1980 (cont.)

	Owner Occupied Number of units at address					Renter Occupied Number of units at address				
	1	2 to 9	10 or more	Mobile home or trailer	Total	1	2 to 9	10 or more	Mobile home or trailer	Total
Gladwin	5,196	76	4	813	6,089	649	128	133	160	1,070
Gogebic	5,747	195	7	225	6,174	720	416	232	36	1,404
Grand Traverse	12,443	444	50	1,500	14,437	2,324	1,321	705	380	4,730
Gratiot	9,361	189	2	823	10,375	1,732	768	248	196	2,944
Hillsdale	10,124	293	6	1,044	11,467	1,573	817	259	267	2,916
Houghton	8,307	386	10	495	9,198	1,469	1,649	561	98	3,777
Huron	9,691	188	9	652	10,540	1,606	419	88	111	2,224
Ingham	51,820	1,341	131	2,427	55,719	19,532	7,481	11,995	452	39,460
Ionia	11,306	232	7	1,218	12,763	1,956	836	403	272	3,467
Iosco	6,465	162	21	482	7,130	1,738	932	222	140	3,032
Iron	4,176	126	1	170	4,473	465	324	148	20	957
Isabella	9,252	237	8	1,255	10,752	2,569	1,116	1,190	417	5,292
Jackson	35,188	855	80	2,273	38,396	6,606	3,498	2,058	416	12,578
Kalamazoo	46,004	1,334	88	2,085	49,511	10,788	7,941	6,744	421	25,894
Kalkaska	2,630	70	1	512	3,213	355	61	43	123	582
Kent	102,362	3,605	252	5,487	111,706	18,125	15,994	9,178	595	43,892
Keweenaw	661	26	1	14	702	103	23	--	5	131
Lake	2,163	62	3	354	2,582	370	31	2	65	468
Lapeer	15,969	355	6	1,111	17,441	2,304	963	197	297	3,761
Leelanau	3,648	143	8	220	4,019	699	185	10	110	1,004
Lenawee	21,383	743	18	1,230	23,374	3,416	2,266	758	230	6,670
Livingston	24,195	381	58	1,546	26,180	2,926	1,237	802	199	5,164
Luce	1,554	56	1	211	1,822	222	55	44	49	370
Mackinac	2,547	162	9	223	2,941	454	206	15	64	739
Macomb	72,639	3,143	461	6,221	182,464	23,085	14,371	8,954	946	47,356

TABLE II-13. NUMBER OF OCCUPIED HOUSING UNITS IN MICHIGAN COUNTIES, BY NUMBER OF UNITS AT ADDRESS: CENSUS 1980 (cont.)

	Owner Occupied Number of units at address					Renter Occupied Number of units at address				
	1	2 to 9	10 or more	Mobile home or trailer	Total	1	2 to 9	10 or more	Mobile home or trailer	Total
Manistee	6,138	222	9	383	6,752	907	572	186	73	1,738
Marquette	13,474	935	14	1,315	15,738	3,862	2,920	1,709	285	8,776
Mason	6,759	231	4	607	7,601	935	761	267	129	2,092
Mecosta	6,660	182	2	1,084	7,928	1,524	945	355	382	3,206
Menominee	6,753	256	3	460	7,472	784	771	164	92	1,811
Midland	17,613	209	8	1,473	19,303	2,631	955	1,190	419	5,195
Missaukee	2,597	44	2	331	2,974	319	58	--	76	453
Monroe	30,822	786	13	2,342	33,963	4,624	2,485	1,844	194	9,147
Montcalm	11,698	236	7	1,419	13,360	1,879	775	293	236	3,183
Montmorency	2,157	89	4	203	2,453	235	64	7	55	361
Muskegon	38,358	974	37	1,838	41,207	6,857	3,862	2,379	221	13,319
Newaygo	8,533	170	6	1,489	10,198	1,217	399	7	313	1,936
Oakland	247,660	5,598	1,418	9,462	264,138	41,430	26,187	22,404	1,028	91,049
Oceana	5,282	125	4	755	6,166	819	268	20	145	1,252
Ogemaw	4,400	82	4	505	4,991	667	129	38	115	949
Ontonagon	2,633	78	7	212	2,930	416	110	32	36	594
Osecola	4,739	103	3	595	5,440	644	249	105	120	1,118
Oscoda	1,883	64	2	239	2,188	233	52	6	38	329
Otsego	3,603	87	8	335	4,033	491	200	91	106	888
Ottawa	38,188	1,009	166	2,157	41,520	4,458	3,260	1,030	181	8,929
Presque Isle	3,974	103	2	277	4,356	398	158	46	50	652
Roscommon	5,042	103	13	419	5,577	689	97	62	94	942
Saginaw	53,198	1,150	91	2,007	56,446	10,473	5,538	3,289	370	19,670
St. Clair	33,575	966	122	2,346	37,009	5,180	3,523	1,208	388	10,299
St. Joseph	13,876	348	8	1,187	15,419	2,172	1,469	314	420	4,375

TABLE II-13. NUMBER OF OCCUPIED HOUSING UNITS IN MICHIGAN COUNTIES, BY NUMBER OF UNITS AT ADDRESS: CENSUS 1980 (cont.)

	Owner Occupied Number of units at address					Renter Occupied Number of units at address				
	1	2 to 9	10 or more	Mobile home or trailer	Total	1	2 to 9	10 or more	Mobile home or trailer	Total
Sanilac	10,415	205	4	973	11,597	1,589	438	127	208	2,362
Schoolcraft	2,183	96	1	178	2,458	309	206	42	30	587
Shiawassee	17,195	460	5	1,147	18,807	2,342	1,627	389	194	4,552
Tuscola	13,684	280	7	1,304	15,275	1,854	694	178	289	3,015
Van Buren	15,129	587	23	2,069	17,808	2,829	1,498	453	533	5,313
Washtenaw	46,430	1,752	108	1,418	49,708	18,639	13,848	10,535	207	43,229
Wayne	507,994	29,896	2,464	7,579	547,933	127,570	82,646	65,009	1,011	276,236
Wexford	6,250	163	9	718	7,140	1,012	478	160	193	1,843
MICHIGAN	2,134,378	73,531	6,246	107,728	2,321,883	419,351	254,824	179,055	20,100	873,330

SOURCE: U.S. Department of Commerce, Bureau of the Census, *1980 Census of Housing, General Housing Characteristics: Michigan*, Tables 47 and 5.

III. HEALTH AND VITAL STATISTICS

Michigan Health Statistics, published annually by the Office of Vital and Health Statistics, Michigan Department of Public Health, is the major source of vital statistics presented here. Births and deaths are estimated on the basis of registrations, which are not complete. In 1950, a test done in connection with the Census of Population revealed that registration of births in Michigan was 98.7 percent complete. The Office of Vital and Health Statistics believes that death registrations exceed birth registrations because a death certificate is required for the issuance of a burial permit. Delayed registration of births and deaths cause negligible statistical aberrations.

Since 1950, births and deaths among nonresidents, but taking place in Michigan, have been excluded from the state data; births and deaths among Michigan residents taking place in other states or countries are included. Allocation intrastate is on the basis of county of residence. An effort is made to determine the city of residence, but for a large number of births and deaths in each county it is impossible to determine this jurisdiction from the registration form. Live birth and death statistics for counties appear in Table III-17; some related statistics, used in determining net migration for counties, appear in Table I-5.

Revisions in the International Classification of Diseases affect the comparability of cause-specific mortality data over time. The ninth revision has been the basis for cause of death classification in Michigan since 1979.

Annual information about registered hospitals is published in Hospitals, Journal of the American Hospital Association. Michigan Department of Public Health compilations exclude federal hospitals and hospitals licensed by the Michigan Department of Mental Health. The latter has jurisdiction over state hospitals for the mentally ill as well as state homes and training schools for the mentally retarded.

Those with a special interest in the death rate from motor vehicle accidents should consult chapter XVII.

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III. HEALTH AND VITAL STATISTICS

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TABLE III-1. LIVE BIRTHS AND DEATHS OF MICHIGAN AND U.S. RESIDENTS: 1945-1981

Year	Michigan		United States	
	Live births	Deaths	Live Births	Deaths
1945	111,557	53,641	2,858,000	1,401,719
1946	138,572	54,856	3,411,000	1,395,617
1947	160,275	56,807	3,817,000	1,445,370
1948	153,726	56,520	3,637,000	1,444,337
1949	156,469	57,107	3,649,000	1,443,607
1950	160,055	57,567	3,632,000	1,452,454
1951	172,451	59,181	3,820,000	1,482,099
1952	177,835	59,138	3,909,000	1,496,838
1953	182,968	62,087	3,959,000	1,517,541
1954	192,104	60,706	4,071,000	1,481,091
1955	196,294	63,087	4,097,000	1,528,717
1956	206,068	64,352	4,210,000	1,564,476
1957	208,488	66,435	4,300,000	1,633,128
1958	202,690	65,899	4,246,000	1,647,886
1959	198,301	66,812	4,286,000	1,656,814
1960	195,056	67,912	4,257,850	1,711,982
1961	192,825	67,375	4,268,326	1,701,522
1962	182,790	70,049	4,167,362	1,756,720
1963	178,871	72,438	4,098,020	1,813,549
1964	175,103	72,129	4,027,490	1,798,051
1965	166,464	73,665	3,760,358	1,828,136
1966	165,794	74,596	3,606,274	1,863,149
1967	162,756	75,360	3,520,959	1,851,323
1968	159,058	76,855	3,501,564	1,930,082
1969	165,760	76,6[illegible]	3,600,206	1,921,990
1970	171,667	76,321	3,731,386	1,921,031
1971	162,244	77,395	3,555,970	1,927,542
1972	146,854	79,210	3,258,411	1,963,944
1973	141,550	78,522	3,136,965	1,973,003
1974	137,414	76,143	3,159,958	1,934,388
1975	133,931	74,522	3,144,198	1,892,879
1976	131,378	75,801	3,167,788	1,909,440
1977	138,416	74,144	3,326,632	1,899,597
1978	138,802	74,773	3,333,279	1,927,788
1979	144,452	73,480	3,494,398	1,913,841
1980	145,162	74,991	3,612,258	1,986,000^{p}
1981	140,579	75,818	3,646,000^{p}	1,987,000^{p}

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1980 (Lansing: 1982), and special release; and National Center for Health Statistics, Vital Statistics of the United States 1978 (Hyattsville, MD: 1982) and Monthly Vital Statistics Report (Hyattsville, MD: monthly).

p: provisional

TABLE III-2. LIVE BIRTH AND DEATH RATES PER 1,000 POPULATION OF MICHIGAN AND U.S. RESIDENTS: 1945-1981

Year	Michigan		United States	
	Live births	Deaths	Live births	Deaths
1945	20.5	9.9	20.4	10.6
1946	24.3	9.6	24.1	10.0
1947	26.4	9.4	26.6	10.1
1948	24.8	9.1	24.9	9.9
1949	24.6	9.0	24.5	9.7
1950	25.1	9.0	24.1	9.6
1951	26.3	9.0	24.9	9.7
1952	26.5	8.8	25.1	9.6
1953	26.7	9.1	25.1	9.6
1954	27.3	8.6	25.3	9.2
1955	27.1	8.7	25.0	9.3
1956	27.4	8.6	25.2	9.4
1957	26.7	8.5	25.3	9.6
1958	25.8	8.4	24.5	9.5
1959	24.9	8.4	24.2	9.4
1960	24.9	8.7	23.7	9.5
1961	24.4	8.5	23.3	9.3
1962	23.0	8.8	22.4	9.5
1963	22.3	9.0	21.7	9.6
1964	21.6	8.9	21.1	9.4
1965	20.3	9.0	19.4	9.4
1966	19.9	9.0	18.4	9.5
1967	18.9	8.7	17.8	9.4
1968	18.3	8.9	17.6	9.7
1969	19.0	8.8	17.9	9.5
1970	19.3	8.6	18.4	9.5
1971	18.1	8.6	17.2	9.3
1972	16.3	8.8	15.6	9.4
1973	15.6	8.7	14.8	9.3
1974	15.1	8.4	14.8	9.1
1975	14.7	8.2	14.6	8.8
1976	14.4	8.3	14.6	8.8
1977	15.1	8.1	15.1	8.6
1978	15.1	8.1	15.0	8.7
1979	15.6	7.9	15.6	8.5
1980	15.7	8.1	15.8^{p}	8.7^{p}
1981	15.2	8.2	15.9^{p}	8.7^{p}

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1980 (Lansing: 1982), and special release; and National Center for Health Statistics, Vital Statistics of the United States 1978 (Hyattsville, MD: 1982) and Monthly Vital Statistics Report (Hyattsville, MD: monthly).

p: provisional.

TABLE III-3. FERTILITY RATES, MICHIGAN AND THE UNITED STATES, SELECTED YEARS: 1910-1981

Year	Michigan	United States
1910	99.0	126.8
1920	111.6	117.9
1930	87.6	89.2
1940	78.9	79.9
1950	110.5	106.2
1960	123.1	118.0
1970	91.7	87.9
1971	84.5	81.6
1972	75.1	73.1
1973	71.2	68.8
1974	68.0	67.8
1975	65.5	66.0
1976	63.5	65.0
1978	65.0	65.8
1979	66.6	67.2
1980	66.3	68.4
1981	63.3	67.6^p

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1980 (Lansing: 1982), Table 1.3; and Michigan Department of Public Health, special release; and National Center for Health Statistics, Vital Statistics of the United States 1978 (Hyattsville, Maryland: 1982) and Monthly Vital Statistics Report (Hyattsville, Maryland: monthly).

p.: provisional

TABLE III-4. LIVE BIRTHS BY RACE, MICHIGAN RESIDENTS: 1965-1981

	White		Black and other minority races[a]		
Year	Number	Percentage of total births	Number	Percentage of total births	Total
1965	145,784	87.6	20,680	12.4	166,464
1966	143,876	86.8	21,918	13.2	165,794
1967	139,721	85.8	23,035	14.2	162,756
1968	135,436	85.1	23,622	14.9	159,058
1969	140,222	84.6	25,538	15.4	165,760
1970	143,871	83.8	27,796	16.2	171,667
1971	134,165	82.7	28,079	17.3	162,244
1972	119,787	81.6	27,067	18.4	146,854
1973	114,878	81.2	26,672	18.8	141,550
1974	112,474	81.9	24,940	18.1	137,414
1975	109,718	81.9	24,213	18.1	133,931
1976	107,907	82.1	23,471	17.9	131,378
1977	114,042	82.4	24,374	17.6	138,416
1978	114,217	82.3	24,585	17.7	138,802
1979	118,671	82.2	25,781	17.8	144,452
1980	119,103	82.0	26,059	18.0	145,162
1981	115,972	82.5	24,607	17.5	140,579

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1980 (Lansing: 1982), Table 1.4; and Michigan Department of Public Health, special release.

a. Indians from India were counted as "white" from 1970-1977, and with "other" from 1978-1981. Includes race not stated.

TABLE III-5. LIVE BIRTHS, BY LIVE BIRTH ORDER, MICHIGAN RESIDENTS, 1971 AND 1981

Live birth order	No. of births		Percentage of total	
	1971	1981	1971	1981
First birth	60,413	59,105	37.2	42.0
Second birth	45,839	45,454	28.3	32.3
Third birth	26,365	22,159	16.3	15.8
Fourth birth	13,799	8,111	8.5	5.8
Fifth birth or greater	15,723	4,824	9.7	3.4
Not stated	105	926	0.1	0.7
TOTAL	162,244	140,579	100.0	100.0

SOURCE: Michigan Department of Public Health, special release.

TABLE III-6. FIRST BIRTHS, MICHIGAN AND U.S. RESIDENTS: 1970-1981

Year	Michigan		United States	
	First births	Percentage of all births	First births	Percentage of all births
1970	64,222	37.4	1,430,680	38.3
1971	60,413	37.2	1,375,668	38.7
1972	57,477	39.1	1,289,257	39.6
1973	57,411	40.6	1,243,358	39.6
1974	56,233	40.9	1,314,194	41.6
1975	55,348	41.3	1,319,126	42.0
1976	54,003	41.1	1,324,811	41.8
1977	56,622	40.9	1,387,143	41.7
1978	57,767	41.6	1,401,491	42.0
1979	60,424	41.8	1,479,260	42.3
1980	61,516	42.4	1,545,604	42.8
1981	59,105	42.0	n.a.	n.a.

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1980 (Lansing: 1982), Table 1.9; and Michigan Department of Public Health, special release.

n.a.: not available.

TABLE III-7. LIVE BIRTH AND LIVE BIRTH RATES, BY AGE OF MOTHER, MICHIGAN RESIDENTS: 1965-1981

Year	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45 and older[a]	Total fertility rate[b]
					Number				
1965	267	24,653	59,439	40,693	23,767	13,528	3,886	211	
1966	310	28,690	60,711	39,225	21,205	11,846	3,547	223	
1967	316	27,267	61,541	40,052	19,840	10,479	3,059	178	
1968	400	26,390	60,072	41,561	18,613	9,095	2,739	163	
1969	421	28,061	63,376	44,615	18,535	8,157	2,433	134	
1970	489	29,764	65,892	46,262	19,003	7,904	2,223	118	
1971	472	28,480	62,367	43,639	18,258	6,975	1,926	113	
1972	503	28,108	54,199	40,442	16,133	5,805	1,555	95	
1973	569	27,808	51,284	39,845	15,520	5,163	1,277	62	
1974	501	25,977	49,975	40,215	15,317	4,291	1,063	50	
1975	463	24,509	48,675	40,061	14,891	4,273	982	54	
1976	404	22,593	47,161	41,412	14,893	4,053	799	47	
1977	426	22,585	49,740	43,346	17,293	4,178	771	51	
1978	345	21,487	49,498	43,744	18,367	4,562	729	50	
1979	355	21,239	51,319	46,084	19,962	4,720	715	41	
1980	331	20,000	51,218	47,113	21,024	4,692	740	22	
1981	300	18,397	47,737	46,527	22,178	4,701	695	34	
				Live Birth Rates per 1,000 Women					
1965	0.6	67.4	192.0	149.0	91.2	51.5	14.7	0.8	2,836.0
1966	0.7	75.4	187.9	140.7	82.1	45.8	13.4	0.9	2,734.5
1967	0.7	69.0	182.8	140.8	77.6	41.2	11.5	0.7	2,621.5
1968	0.9	64.3	171.5	143.2	73.4	36.3	10.2	0.6	2,502.0
1969	0.9	66.0	174.2	150.8	73.8	33.1	9.1	0.5	2,542.0
1970	1.0	68.2	176.2	154.2	76.2	32.4	8.3	0.4	2,584.5
1971	1.0	64.7	161.7	138.6	69.1	27.9	7.2	0.4	2,353.0
1972	1.1	63.7	137.6	124.1	58.6	22.8	5.9	0.4	2,071.0
1973	1.2	62.8	127.5	118.3	54.2	19.9	4.9	0.2	1,945.0
1974	1.1	58.5	121.9	115.7	51.5	16.3	4.1	0.2	1,846.5
1975	1.1	55.3	117.0	112.3	48.4	16.0	3.9	0.2	1,771.0
1976	0.9	51.1	111.6	113.0	46.9	15.0	3.2	0.2	1,709.5
1977	1.0	50.9	115.5	114.9	52.6	15.2	3.1	0.2	1,767.0
1978	0.8	48.3	112.7	112.6	54.0	16.3	3.0	0.2	1,739.5
1979	0.9	47.6	114.6	115.2	56.7	16.6	3.0	0.2	1,774.0
1980	0.8	44.8	113.1	115.6	58.4	16.4	3.1	0.1	1,761.5
1981	0.8	42.7	105.4	112.1	58.0	15.9	2.9	0.2	1,690.0

SOURCE: Michigan Department of Public Health, special release.

NOTE: Live birth rates are per 1,000 women in specified age group.

a. Rate calculated as number of live births to women aged 45 and over per 1,000 women 45-49 years of age.

b. Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.

TABLE III-8. INFANT, NEONATAL, POSTNEONATAL, PERINATAL, FETAL, AND MATERNAL DEATHS, MICHIGAN RESIDENTS: 1945-1981

Year	Under 1 year	Under 28 days	28-364 days	Perinatal	Fetal	Maternal
1945	4,008	2,670	1,338	4,906	2,703	166
1946	4,541	3,323	1,218	5,978	3,168	163
1947	5,055	3,677	1,378	6,583	3,422	173
1948	4,617	3,352	1,265	5,968	3,132	120
1949	4,520	3,232	1,288	5,746	2,994	105
1950	4,214	3,043	1,171	5,781	3,095	91
1951	4,505	3,296	1,209	6,088	3,158	94
1952	4,689	3,414	1,275	6,266	3,224	82
1953	4,728	3,369	1,339	6,188	3,180	79
1954	4,795	3,560	1,235	6,415	3,249	94
1955	4,873	3,707	1,166	6,381	3,029	61
1956	5,047	3,796	1,251	6,655	3,245	84
1957	5,093	3,884	1,209	6,668	3,154	79
1958	4,980	3,789	1,191	6,516	3,101	69
1959	4,846	3,674	1,172	6,250	2,928	72
1960	4,702	3,580	1,122	6,247	3,008	75
1961	4,604	3,475	1,129	5,875	2,735	78
1962	4,367	3,251	1,116	5,669	2,703	56
1963	4,150	3,109	1,041	5,407	2,540	71
1964	4,043	3,071	972	5,293	2,466	62
1965	3,936	2,909	1,027	5,139	2,475	54
1966	3,751	2,830	921	4,909	2,295	54
1967	3,595	2,714	881	4,693	2,195	52
1968	3,438	2,617	821	476	2,064	44
1969	3,356	2,550	806	4,488	2,175	27
1970	3,492	2,683	809	4,522	2,060	29
1971	3,157	2,412	745	4,139	1,923	32
1972	2,801	2,115	686	3,700	1,770	35
1973	2,561	1,902	659	3,392	1,682	26
1974	2,387	1,734	653	2,947	1,438	19
1975	2,205	1,563	642	2,673	1,356	16
1976	1,978	1,424	554	2,495	1,264	14
1977	1,945	1,367	578	2,452	1,284	11
1978	1,931	1,281	650	2,319	1,218	15
1979	1,921	1,295	626	2,326	1,216	11
1980	1,851	1,284	567	2,276	1,176	16
1981	1,851	1,281	570	2,194	1,083	7

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1980 (Lansing: 1982), Table 4.1, and special release.

TABLE III-9. NUMBER OF DEATHS BY SIX LEADING CAUSES AMONG MICHIGAN RESIDENTS: 1945-1981

Year	Heart disease	Cancer (all forms)	Cerebro-vascular disease	Accidents		Diabetes	Pneumonia and Influenza
				Motor vehicle	All forms		
1945	17,421	7,486	5,295	1,199	3,432	1,561	2,138
1946	17,691	7,845	5,224	1,506	3,776	1,530	2,119
1947	18,412	8,188	5,426	1,499	3,848	1,618	2,276
1948	18,726	8,336	5,272	1,545	4,017	1,771	1,929
1949	19,137	8,697	5,438	1,493	3,838	1,884	1,968
1950	20,521	8,685	6,376	1,680	3,783	1,438	1,481
1951	21,118	9,187	6,579	1,806	3,916	1,374	1,892
1952	21,247	9,256	6,521	1,815	3,901	1,339	1,693
1953	22,425	9,904	7,045	2,051	4,375	1,419	1,777
1954	22,362	10,105	6,964	1,916	3,948	1,469	1,437
1955	23,440	10,297	7,362	2,129	4,213	1,415	1,599
1956	24,661	10,489	7,114	1,826	3,925	1,443	1,779
1957	25,369	10,810	7,632	1,680	3,643	1,510	2,237
1958	25,215	10,946	7,547	1,466	3,306	1,595	2,209
1959	25,323	11,113	7,700	1,587	3,666	1,715	1,920
1960	25,728	11,331	7,682	1,710	3,688	1,784	2,224
1961	25,519	11,476	7,745	1,656	3,692	1,778	1,762
1962	27,226	11,752	7,783	1,668	3,758	1,908	1,954
1963	27,483	12,078	8,168	2,005	4,033	2,049	2,229
1964	27,496	12,087	7,940	2,286	4,416	2,055	1,754
1965	28,134	12,419	7,769	2,271	4,494	2,153	2,086
1966	28,277	12,506	7,732	2,407	4,737	2,243	2,085
1967	28,757	13,030	7,846	2,265	4,519	2,182	2,051
1968	29,680	13,292	7,913	2,466	4,603	2,298	2,577
1969	29,396	13,328	7,706	2,579	4,766	2,188	2,439
1970	29,204	13,551	7,691	2,309	4,428	2,180	2,101
1971	30,095	13,594	7,826	2,274	4,426	2,103	2,058
1972	30,865	14,045	7,999	2,450	4,566	2,222	2,201
1973	29,944	14,220	7,987	2,389	4,630	2,074	2,090
1974	29,220	14,241	7,645	1,929	4,211	1,940	1,698
1975	28,298	14,445	7,262	1,841	4,002	1,819	1,825
1976	29,233	14,880	7,354	1,993	3,912	1,719	2,106
1977	28,895	15,125	6,818	1,993	3,945	1,615	1,660
1978	29,406	15,249	6,520	2,138	3,970	1,551	2,003
1979	29,296	15,409	6,067	1,967	3,839	1,449	1,475
1980	29,790	15,828	6,164	1,880	3,627	1,467	1,808
1981	30,172	16,142	6,121	1,727	3,390	1,487	1,716

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1980 (Lansing: 1982), Table 4.8; and special release.

TABLE III-10. NUMBER OF DEATHS AMONG MICHIGAN RESIDENTS, BY SIXTEEN LEADING CAUSES[1], BY SEX AND AGE GROUP: 1981

Cause	Sex			Age group					
	Male	Female	Total	Under 1 year	1-19 years	20-44 years	45-64 years	65 and over	Not stated
Diseases of heart	16,423	13,746	30,172	32	38	693	6,269	23,136	4
Cancer	8,609	7,533	16,142	4	148	770	5,502	9,718	--
Cerebrovascular	2,520	3,601	6,121	7	11	161	829	5,113	--
Accident & adverse effects	2,383	1,007	3,390	41	673	1,327	578	771	--
Chronic obstructive pulmonary diseases and allied conditions[2]	1,516	687	2,203	1	13	27	421	1,741	--
Pneumonia and Influenza	913	803	1,716	16	14	65	198	1,423	--
Diabetes Mellitus	650	837	1,487	--	3	64	340	1,080	--
Atherosclerosis	492	778	1,270	--	--	3	34	1,233	--
Chronic Liver disease and cirrhosis	820	433	1,253	--	1	191	682	379	--
Suicide	806	268	1,074	--	73	553	292	156	--
Certain conditions originating in the perinatal period	588	439	1,028	1,021	4	--	--	2	--
Homicide & legal intervention	706	232	938	7	133	582	156	60	--
Nephritis, nephrotic syndrome, & nephrosis	320	345	665	10	3	34	115	503	--
Congenital anomalies	257	238	501	322	70	48	31	28	2
Septicemia	214	229	443	5	3	27	88	320	--
Hypertension with or without renal disease	117	162	279	--	--	10	46	223	--
All other causes	3,773	3,362	7,136	385	194	781	1,384	4,392	--
TOTAL	41,107	34,700	75,818	1,851	1,381	5,336	16,965	50,278	7

SOURCE: Michigan Department of Public Health, special release.

1. Cause of death ranking is based on the list of 72 Selected Causes of Death used by the National Center for Health Statistics beginning in 1979.
2. Includes bronchitis, emphysema, asthma, and other chronic obstructive pulmonary diseases and allied conditions.
3. Male and female deaths do not add to total due to eleven deaths with sex unknown.

TABLE III-11. DEATH RATES AMONG MICHIGAN RESIDENTS, BY AGE AND SEX: 1980 AND 1981

Age	1980			1981		
	Male	Female	Total	Male	Female	Total
All ages	907.0	716.9	809.7	910.1	730.0	817.9
0-4 years	351.0	277.9	315.4	342.1	275.6	310.6
5-9 years	31.7	25.4	28.6	30.7	23.6	27.2
10-14 years	35.4	23.7	29.7	38.1	25.3	31.9
15-19 years	119.5	45.7	83.0	106.1	39.6	73.2
20-24 years	175.6	68.0	121.1	157.1	52.1	103.9
25-29 years	183.1	74.6	128.3	179.4	63.1	120.7
30-34 years	196.1	90.3	142.3	189.4	92.1	139.9
35-39 years	243.4	129.8	185.7	245.5	132.0	187.8
40-44 years	354.3	205.8	278.3	347.6	190.9	267.4
45-49 years	575.1	319.3	443.1	554.6	324.4	435.9
50-54 years	888.7	490.4	684.4	893.8	515.7	699.7
55-59 years	1,433.3	735.0	1,069.3	1,419.1	771.1	1,081.8
60-64 years	2,232.1	1,178.2	1,670.7	2,196.8	1,177.0	1,654.5
65-69 years	3,387.3	1,827.8	2,531.5	3,453.0	1,792.5	2,544.0
70-74 years	5,257.4	2,751.7	3,813.7	5,115.1	2,766.0	3,762.3
75-79 years	7,831.2	4,378.7	5,740.8	7,863.6	4,513.4	5,831.9
80-84 years	11,848.8	7,211.1	8,907.7	11,098.0	7,001.7	8,452.7
85 and over	19,022.4	14,657.7	16,011.7	19,081.1	14,695.9	16,055.1

SOURCES: Michigan Department of Public Health, special release.

NOTE: Rates per 100,000 population.

TABLE III-12. DEATHS FROM ACCIDENTS BY EXTERNAL CAUSE OF INJURY, MICHIGAN RESIDENTS: 1973-1981[1]

Cause of injury	1973	1974	1975	1976	1977	1978	1979	1980	1981
Transport, total	2,542	2,040	1,961	2,093	2,094	2,237	2,074	1,977	1,819
Motor vehicle	2,389	1,929	1,841	1,993	1,993	2,138	1,967	1,880	1,727
Railroad	11	10	10	9	8	13	9	5	5
Other road vehicle, nontraffic	6	5	4	6	2	2	6	10	5
Water transportation	67	47	56	35	33	58	40	42	35
Air transportation	69	49	50	50	58	26	32	40	47
Nontransport, total	2,004	2,106	1,978	1,763	1,781	1,663	1,664	1,559	1,507
Poisoning	229	232	246	223	156	162	159	148	149
Falls	652	685	618	580	564	537	549	485	468
Blow from falling object	36	36	32	35	45	34	46	43	33
Machinery	24	22	32	22	21	19	38	43	55
Electric current	42	33	46	30	55	30	28	36	29
Fire and explosion of combustible material	283	337	274	251	311	245	276	234	249
Hot substance or object, caustic or corrosive material & steam	10	8	12	5	3	11	8	9	10
Firearm	75	87	67	53	60	37	58	53	51
Inhalation or ingestion of food or other object	135	151	139	143	105	141	144	137	129
Mechanical suffocation	39	49	38	41	28	38	44	37	37
Drowning or submersion	294	275	293	235	238	205	185	213	183
Other causes	185	191	191	145	195	204	129	121	114
Surgical & medical misadventures & late complications, late effects of injury and poisoning[2]	84	65	63	56	70	70	101	91	64
TOTAL	4,630	4,211	4,002	3,912	3,945	3,970	3,839	3,627	3,390

SOURCE: Michigan Department of Public Health, special release.

1. Deaths in 1979-1981 are coded by the 9th Revision International Classification of Diseases, WHO, while those in 1970-1978 were coded by the 8th Revision International Classification of Diseases, Adapted, National Center for Health Statistics Comparability ratios are not available so comparisons of death rates for these categories between years prior to 1979 and years since 1979 should be made with caution.
2. 9th Revision ICD codes used are E870-E879 and E929-E949. 8th Revision ICDA codes used are E930-E949.

TABLE III-13. LIFE EXPECTANCY AT BIRTH, BY SEX, MICHIGAN AND U.S. RESIDENTS, SELECTED YEARS: 1910-1981

Year	Michigan[a]		United States	
	Male life expectancy	Female life expectancy	Male life expectancy	Female life expectancy
1910	53.9	56.2	48.4	51.8
1920	55.1	56.0	53.6	54.6
1930	59.8	62.8	58.1	61.6
1940	63.4	67.4	60.8	65.2
1950	65.7	71.2	65.6	71.1
1960	67.1	73.3	66.6	73.1
1970	67.2	74.6	67.1	74.8
1971	67.3	74.9	67.4	75.0
1972	67.3	74.9	67.4	75.1
1973	67.4	75.0	67.6	75.3
1974	68.0	75.3	68.1	75.8
1975	68.5	75.7	68.7	76.5
1976	69.0	75.9	69.0	76.7
1977	69.3	76.3	69.3	77.1
1978	69.6	76.4	69.5	77.2
1979	70.0	76.8	69.9	77.6
1980	70.0	76.9	n.a.	n.a.
1981	70.2	76.9	n.a.	n.a.

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1980 (Lansing: 1982), Table 2.70; and special release.
a. Michigan data for 1920, 1930, and 1940 are for white only.
n.a.: not available.

TABLE III-14. LIFE EXPECTANCY AT BIRTH, BY SEX AND RACE, MICHIGAN RESIDENTS: 1950, 1960, 1970, AND 1981

Population subgroup	Year			
	1950	1960	1970	1981
White				
Female	71.9	74.0	75.3	77.5
Male	66.2	67.5	68.2	71.0
Total white	68.8	70.5	71.6	74.3
All other				
Female	63.4	67.7	69.4	73.4
Male	60.4	63.6	61.0	65.8
Total all other	61.8	65.6	65.0	69.5
Total				
Female	71.2	73.3	74.6	76.9
Male	65.7	67.1	67.2	70.2
Total population	68.3	70.0	70.8	73.6

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1980 (Lansing: 1982), Table 2.71; and special release.

TABLE III-15. REPORTED CASES OF CERTAIN COMMUNICABLE DISEASES IN MICHIGAN, SELECTED PERIODS: 1930-1981

Disease	Annual average				Annual total			
	1930-1939	1940-1949	1950-1959	1960-1969	1978	1979	1980	1981
Diphtheria	1,121	245	66	2	0	0	1	0
Scarlet fever[a]	15,860	7,553	6,745	11,656	29,759	30,182	24,808	13,529
Smallpox	445	26	0	0	0	0	0	0
Typhoid fever	373	85	31	9	15	14	12	26
Whooping cough	11,815	8,676	3,464	884	47	102	38	30
Measles	28,467	29,939	28,907	21,569	8,006	869	250	34
Infectious hepatitis[b] (includes serum & unsp. hepatitis)	0	44	748	2,798	2,174	2,036	1,799	1,700
Tuberculosis[c] (all forms)	5,897	5,967	5,559	3,181	1,260	1,052	1,168	931
Meningococcal[d] infections	190	257	164	127	87	79	77	93
Poliomyelitus	393	844	1,593	18	1	0	1	0
Syphilis	10,670	13,726	5,495	4,824	1,133	1,260	1,163	1,053
Gonorrhea	6,931	10,176	8,858	13,612	36,647	36,624	34,951	32,524
Chancroid	180	277	106	99	49	59	50	32

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1980 (Lansing: 1982), Table 4.5, and special release.

a. Streptococcal sore throat including scarlet fever.

b. No cases tabulated prior to 1945. Figure shown for the period 1940-1949 is average of 1945-1949.

c. Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

d. Prior to 1952 data were for meningococcic meningitis.

TABLE III-16. LIVE BIRTHS AND DEATHS AMONG MICHIGAN RESIDENTS, BY COUNTY: 1980 AND 1981

County	Live births				Deaths			
	Number		Rate[a]		Number		Rate[a]	
	1980	1981	1980	1981	1980	1981	1980	1981
Alcona	122	100	12.5	10.1	137	118	14.1	11.9
Alger	145	161	15.7	17.7	104	110	11.3	12.1
Allegan	1,366	1,389	16.7	16.8	626	598	7.7	7.2
Alpena	500	516	15.5	15.8	252	274	7.8	8.4
Antrim	233	227	14.4	13.7	168	181	10.4	10.9
Arenac	225	227	15.3	15.2	165	179	11.2	12.0
Baraga	133	119	15.7	13.8	109	106	12.8	12.3
Barry	720	701	15.7	15.0	338	333	7.4	7.1
Bay	1,845	1,804	15.4	15.1	959	928	8.0	7.8
Benzie	177	175	15.8	15.3	134	113	12.0	9.9
Berrien	2,829	2,641	16.5	15.5	1,506	1,483	8.8	8.7
Branch	731	658	18.2	16.4	385	361	9.6	9.0
Calhoun	2,236	2,163	15.8	15.3	1,217	1,248	8.6	8.8
Cass	776	727	15.7	14.8	428	404	8.6	8.2
Charlevoix	335	352	16.8	17.7	194	190	9.7	9.6
Cheboygan	356	346	17.2	16.6	183	215	8.9	10.3
Chippewa	461	401	15.9	13.7	315	276	10.9	9.4
Clare	348	363	14.6	14.9	207	273	8.7	11.2
Clinton	899	896	16.1	16.0	290	307	5.2	5.5
Crawford	184	195	19.4	20.3	97	94	10.2	9.8
Delta	572	582	14.7	14.8	361	363	9.3	9.2
Dickinson	391	382	15.4	15.1	271	305	10.7	12.0
Eaton	1,231	1,3[illegible]3	13.9	14.9	498	500	5.6	5.7
Emmet	357	351	15.5	14.8	20[illegible]	222	9.1	9.4
Genesee	7,689	7,478	17.1	16.6	3,307	3,246	7.3	7.2
Gladwin	293	277	14.7	13.6	200	198	10.0	9.7
Gogebic	186	235	9.4	11.9	269	287	13.7	14.5
Grand Traverse	942	952	17.2	16.8	442	465	8.1	8.2
Gratiot	599	619	14.8	15.2	427	369	10.6	9.1
Hillsdale	663	634	15.8	15.2	380	417	9.0	10.0
Houghton	503	515	13.3	13.5	437	392	11.5	10.3
Huron	625	539	17.1	14.7	392	408	10.8	11.1
Ingham	4,462	4,420	16.2	15.9	1,600	1,649	5.8	5.9
Ionia	906	915	17.5	17.5	416	415	8.0	7.9
Iosco	536	564	18.9	19.4	267	289	9.4	9.9
Iron	179	185	13.1	13.5	180	205	13.2	14.9
Isabella	725	719	13.4	13.3	289	298	5.3	5.5
Jackson	2,240	2,213	14.8	14.8	1,298	1,225	8.6	8.2
Kalamazoo	3,245	3,258	15.3	15.1	1,434	1,471	6.8	6.8
Kalkaska	236	207	21.5	18.3	100	109	9.1	9.6
Kent	8,401	8,503	18.9	18.8	3,487	3,444	7.8	7.6
Keweenaw	22	23	11.2	11.7	43	31	21.9	15.7
Lake	102	127	13.2	16.2	115	112	14.9	14.3

TABLE III-16. LIVE BIRTHS AND DEATHS AMONG MICHIGAN RESIDENTS, BY COUNTY: 1980 AND 1981 (cont.)

County	Live births				Deaths			
	Number		Rate[a]		Number		Rate[a]	
	1980	1981	1980	1981	1980	1981	1980	1981
Lapeer	1,219	1,101	17.4	15.7	467	478	6.7	6.8
Leelanau	201	199	14.3	14.4	107	120	7.6	8.7
Lenawee	1,433	1,378	15.9	15.3	739	727	8.2	8.1
Livingston	1,462	1,437	14.6	14.2	588	566	5.9	5.6
Luce	110	91	16.5	14.1	74	67	11.1	10.4
Mackinac	153	158	15.0	15.4	120	115	11.8	11.2
Macomb	9,690	9,406	14.0	13.6	4,619	4,912	6.6	7.1
Manistee	284	292	12.3	12.8	243	248	10.6	10.9
Marquette	1,367	1,302	18.4	17.6	455	466	6.1	6.3
Mason	459	416	17.4	15.5	285	296	10.8	11.0
Mecosta	492	419	13.3	11.1	265	209	7.2	5.5
Menominee	128	399	4.9	15.3	271	293	10.3	11.2
Midland	1,133	1,197	15.4	16.3	376	481	5.1	6.6
Missaukee	206	213	20.6	20.9	90	93	9.0	9.1
Monroe	2,154	1,9337	16.0	14.5	919	906	6.8	6.8
Montcalm	859	783	18.1	15.9	441	462	9.3	9.4
Montmorency	118	96	15.8	12.6	88	100	11.7	13.2
Muskegon	2,651	2,542	16.8	16.1	1,340	1,434	8.5	9.1
Newaygo	580	539	16.6	15.1	327	311	9.4	8.7
Oakland	14,125	13,917	14.0	13.7	6,962	7,239	6.9	7.1
Oceana	386	378	17.5	17.1	217	180	9.9	8.1
Ogemaw	249	282	15.1	17.2	186	189	11.3	11.5
Ontonagon	99	131	10.0	13.0	116	105	11.8	10.4
Osceola	316	346	16.7	18.0	168	164	8.9	8.5
Oscoda	123	103	17.9	14.5	84	85	12.2	11.9
Otsego	265	272	17.7	18.0	143	130	9.5	8.6
Ottawa	2,779	2,740	17.7	17.2	897	928	5.7	5.8
Presque Isle	247	222	17.3	15.7	136	169	9.5	12.0
Roscommon	230	240	14.0	13.8	232	227	14.2	13.1
Saginaw	3,910	3,636	17.1	16.0	1,714	1,673	7.5	7.4
St. Clair	2,103	2,005	15.2	14.4	1,180	1,222	8.5	8.8
St. Joseph	967	912	17.2	15.7	493	511	8.8	8.8
Sanilac	616	625	15.1	15.3	417	393	10.2	9.6
Schoolcraft	134	127	15.6	15.2	89	103	10.4	12.4
Shiawassee	1,247	1,063	17.5	15.0	498	492	7.0	6.9
Tuscola	935	871	16.4	15.3	440	448	7.7	7.9
Van Buren	1,114	1,180	16.7	17.5	633	595	9.5	8.8
Washtenaw	3,905	3,887	14.7	14.6	1,362	1,391	5.1	5.2
Wayne	36,530	34,120	15.6	14.8	22,716	22,795	9.7	9.9
Wexford	435	434	17.3	16.9	235	265	9.4	10.3
Not stated	22	11	--	--	23	19	--	--
MICHIGAN	145,162	140,579	15.7	15.2	74,991	75,818	8.1	8.2

SOURCE: Michigan Department of Public Health, special release.

a. Rate per 1,000 population.

TABLE III-17. FERTILITY RATIO IN MICHIGAN BY COUNTY, CENSUS 1970 AND 1980

County	Ratio 1970	Ratio 1980	County	Ratio 1970	Ratio 1980
Alcona	390	289	Lake	415	335
Alger	381	328	Lapeer	426	324
Allegan	411	327	Leelanau	407	272
Alpena	384	286	Lenawee	366	313
Antrim	427	325	Livingston	407	290
Arenac	422	324	Luce	316	326
Baraga	500	376	Mackinac	396	323
Barry	384	314	Macomb	410	249
Bay	414	302	Manistee	393	279
Benzie	391	291	Marquette	341	318
Berrien	383	303	Mason	360	315
Branch	364	312	Mescosta	305	220
Calhoun	355	291	Menominee	392	351
Cass	383	312	Midland	417	295
Charlevoix	403	320	Missaukee	390	367
Cheboygan	430	319	Monroe	423	320
Chippewa	385	299	Montcalm	418	342
Clare	388	307	Montmorency	358	347
Clinton	458	311	Muskegon	386	314
Crawford	393	344	Newaygo	404	337
Delta	393	320	Oakland	358	250
Dickinson	349	321	Oceana	408	349
Eaton	389	277	Ogemaw	410	320
Emmet	391	281	Ontonagon	440	297
Genesee	412	294	Osceola	381	335
Gladwin	411	323	Oscoda	402	314
Gogebic	340	282	Otsego	450	339
Grand Traverse	353	286	Ottawa	396	315
Gratiot	412	318	Presque Isle	417	341
Hillsdale	381	311	Roscommon	349	293
Houghton	379	281	Saginaw	433	304
Huron	431	355	St. Clair	408	306
Ingham	331	234	St. Joseph	385	344
Ionia	449	356	Sanilac	428	340
Iosco	418	356	Schoolcraft	392	326
Iron	272	318	Shiawassee	431	329
Isabella	274	202	Tuscola	421	315
Jackson	386	296	Van Buren	410	334
Kalamazoo	318	239	Washtenaw	289	209
Kalkaska	517	397	Wayne	363	286
Kent	377	302	Wexford	414	325
Keweenaw	352	367	TOTAL	375	283

SOURCE: Bureau of the Census, 1970 Census of Population, General Population Characteristics, Michigan, (Washington, D.C.: 1971) PC(1)-B24, Table 16 and 1980 Census of Population, General Population, General Population Characteristics, Michigan, (Washington, D.C.: 1982), PC80-1-B24, Table 14.

TABLE III-18. NUMBER AND RATE OF MARRIAGES AND DIVORCES TAKING PLACE IN MICHIGAN AND THE UNITED STATES: 1962-1981

	Michigan				United States			
Year	Number of marriages	Rate	Number of divorces	Rate	Number of marriages	Rate	Number of divorces	Rate
1962	65,002	8.2	17,500	2.2	1,577,000	8.5	413,000	2.2
1963	68,160	8.5	17,479	2.2	1,654,000	8.8	428,000	2.3
1964	73,911	9.1	19,400	2.4	1,725,000	9.0	450,000	2.4
1965	81,247	9.9	20,305	2.5	1,800,000	9.3	479,000	2.5
1966	83,903	10.1	21,727	2.6	1,857,000	9.5	499,000	2.5
1967	84,363	9.8	[illegible]	3.0	1,927,000	9.7	523,000	2.6
1968	90,984	10.5	25,400	3.0	2,069,000	10.4	584,000	2.9
1969	93,392	10.7	28,347	3.3	2,145,000	10.6	639,000	3.2
1970	91,933	10.4	29,934	3.4	2,158,802	10.6	708,000	3.5
1971	92,134	10.3	31,790	3.5	2,190,481	10.6	773,000	3.7
1972	94,447	10.5	35,505	3.9	2,282,154	10.9	845,000	4.0
1973	94,486	10.4	37,128	4.1	2,284,108	10.8	915,000	4.3
1974	88,023	9.7	39,940[a]	4.4[a]	2,229,667	10.5	977,000	4.6
1975	82,856	9.1	40,782	4.5	2,152,662	10.0	1,036,000	4.8
1976	82,753	9.1	43,101	4.7	2,154,807	9.9	1,083,000	5.0
1977	86,088	9.4	43,036	4.7	2,178,367	9.9	1,091,000	5.0
1978	88,333	9.6	45,029	4.9	2,282,272	10.3	1,130,000	5.1
1979	89,450	9.7	44,242	4.8	2,331,337	10.4	1,181,000	5.3
1980	86,898	9.4	45,047	4.9	2,413,000[p]	10.6[p]	[illegible],182,000[p]	5.2[p]
1981	85,252	9.2	43,167	4.7	2,438,000[p]	10.6[p]	1,219,000[p]	5.3[p]

SOURCE: Michigan Department of Public Health, Michigan Health Statistics, 1980 (Lansing: 1982), Table 4.1, and special release; National Center for Health Statistics, Vital Statistics of the United States, 1978, vol. 3, Marriage and Divorce (Hyattsville, MD: 1982), and Monthly Vital Statistics Report, (Hyattsville, MD: monthly).

a. Estimate

p.: provisional.

TABLE III-19. MARRIAGES IN MICHIGAN, BY ORDER OF MARRIAGE AND AGE OF BRIDE AND GROOM: 1981

Age	Bride, order of marriage						Groom, order of marriage					
	First	Second	Third	Fourth or more	Not stated	Total	First	Second	Third	Fourth or more	Not stated	Total
Under 15	10	0	0	0	0	10	0	0	0	0	0	0
15	136	0	0	0	3	139	2	0	0	0	0	2
16	1,148	2	0	0	1	1,151	72	0	0	0	1	73
17	2,218	6	0	0	0	2,224	349	0	0	0	2	351
18	5,516	41	0	0	2	5,559	1,997	2	0	0	2	2,001
19	6,695	103	3	0	2	6,803	3,650	8	0	0	1	3,659
20-24	29,931	3,253	134	8	1	33,327	29,698	1,500	38	0	5	31,241
25-29	9,466	6,019	753	68	5	16,311	14,834	5,324	398	24	2	20,582
30-34	2,029	4,722	1,122	215	1	8,089	3,790	5,530	1,007	132	3	10,462
35-39	449	2,542	883	227	0	4,101	879	3,511	1,052	220	1	5,663
40-44	160	1,560	629	204	0	2,553	279	2,142	808	214	0	3,443
45-49	82	986	406	131	0	1,605	167	1,491	568	165	1	2,392
50-54	58	727	280	92	0	1,157	95	1,082	459	124	0	1,760
55-59	51	480	214	65	0	810	101	841	313	99	0	1,354
60-64	27	415	133	40	0	615	64	590	218	56	1	929
65-69	19	291	104	37	0	451	18	424	131	42	0	615
70-74	7	139	55	25	0	226	9	256	81	33	0	379
75 and over	3	82	24	8	0	117	10	229	80	22	0	341
Not stated	1	3	0	0	0	4	3	2	0	0	0	5
MICHIGAN TOTAL	58,006	21,371	4,740	1,120	15	85,252	56,017	22,932	5,153	1,131	19	85,252

SOURCE: Michigan Department of Public Health, special release.

TABLE III-20. BOOK CENSUS OF PATIENTS IN STATE REGIONAL PSYCHIATRIC HOSPITALS, FISCAL YEARS ENDED SEPTEMBER 30, 1980 AND 1981

Name of institution	Location	Book census, September 30					
		Residents[a]		Nonresidents[b]		Total	
		1980	1981	1980	1981	1980	1981
Caro Regional Mental Health Center	Caro	10	17	7	2	17	19
Clinton Valley Center	Pontiac	731	593	233	260	964	853
Detroit Psychiatric Institute	Detroit	138	129	61	75	199	204
Hawthorne Center	Northville	136	121	179	149	305	270
Kalamazoo Regional Psychiatric Center	Kalamazoo	780	738	204	190	984	928
Lafayette Clinic	Detroit	115	92	53	67	168	159
Michigan Institute for Mental Health	Dimondale	61	--	55	--	116	--
Newberry Regional Mental Health Center	Newberry	156	124	5	13	161	137
Northville Regional Psychiatric Hospital	Northville	745	1,003	67	119	812	1,122
Walter P. Reuther Psychiatric Hospital	Westland	216	302	1	1	217	303
Traverse City Regional Psychiatric Hospital	Traverse City	403	331	116	56	519	387
Ypsilanti Regional Psychiatric Hospital	Ypsilanti	878	838	91	112	969	950
Center for Forensic Psychiatry	Ann Arbor	158	193	4	5	162	198
MICHIGAN		4,527	4,487	1,066	1,049	5,593	5,530

SOURCE: Michigan Department of Mental Health, special release.

NOTE: Facilities for mentally ill.

a. In house and on authorized or unauthorized leave.

b. Community living facilities, foster family care, and convalescent status.

TABLE III-21. BOOK CENSUS OF PATIENTS IN CENTERS FOR DEVELOPMENTAL DISABILITIES, FISCAL YEARS ENDED SEPTEMBER 30, 1980 AND 1981

Name of institution	Location	Book census, September 30					
		Residents[a]		Nonresidents[b]		Total	
		1980	1981	1980	1981	1980	1981
Alpine Regional Center for Developmental Disabilities	Gaylord	181	164	261	278	442	442
Caro Regional Mental Health Center	Caro	612	486	75	92	687	578
Coldwater Regional Center for Developmental Disabilities	Coldwater	606	513	313	326	919	839
Hillcrest Regional Center for Devlopmental Disabilities	Howell	355	297	251	169	606	466
Macomb-Oakland Regional Center	Mt. Clemens	194	228	817	885	1,011	1,113
Mt. Pleasant Regional Center for Developmental Disabilities	Mt. Pleasant	485	500	243	271	728	771
Muskegon Regional Center for Developmental Disabilities	Muskegon	405	446	130	178	535	624
Newberry Regional Mental Health Center	Newberry	253	237	27	13	280	250
Northville Residential Training Center	Northville	144	103	50	148	194	251
Oakdale Regional Center for Developmental Disabilities	Lapeer	825	726	228	225	1,053	951
Plymouth Center for Human Development	Northville	468	370	677	652	1,145	1,022
Southgate Regional Center for Developmental Disabilities	Southgate	170	169	201	271	371	440
MICHIGAN		4,698	4,239	3,273	3,508	7,971	7,747

SOURCE: Michigan Department of Mental Health, special release.
NOTE: Facilities for mentally retarded

a. In house and on authorized or unauthorized leave.

b. Community living facilities, foster family care, and convalescent status.

TABLE III-22. HEALTH INSURANCE PREMIUMS BY TYPE OF INSURER IN MICHIGAN AND THE UNITED STATES: 1971-1980

(In millions of dollars)

	Insurance companies		Blue Cross, Blue Shield, and other hospital medical plans		Total	
Year	Michigan	United States	Michigan	United States	Michigan	United States
1971	619	12,777	867	10,058	1,487	22,835
1972	673	14,771	994	11,465	1,667	26,236
1973	761	16,104	1,119	12,908	1,880	29,012
1974	821	17,915	1,209	14,533	2,030	32,448
1975	899	20,795	1,301	16,943	2,200	37,738
1976	925	24,502	1,577	19,955	2,502	44,457
1977	1,117	28,676	1,924	23,187	3,041	51,863
1978[a]	--	32,713	--	27,362	--	60,075
1979	1,387	37,941	2,348	30,300	3,735	68,241
1980	1,462	43,666	2,487	34,058	3,949	77,724

SOURCE: Health Insurance Institute, *Source Book of Health Insurance Data*, 1971-72 through 1980-1981 (New York, N.Y.: annually).
NOTE: The data refer to insurance company written premiums and earned subscription income of Blue Cross, Blue Shield, and other hospital-medical plans. "Insurance companies" includes premiums for loss of income protection.

TABLE III-23. HEALTH INSURANCE BENEFIT PAYMENTS OF INSURANCE COMPANIES IN MICHIGAN AND THE UNITED STATES: 1971-1980

(In millions of dollars)

	Insurance companies		Blue Cross, Blue Shield, and other hospital medical plans		Total	
Year	Michigan	United States	Michigan	United States	Michigan	United States
1971	487	9,497	770	9,372	1,257	18,869
1972	543	10,622	900	10,412	1,444	21,034
1973	582	11,863	999	11,687	1,581	23,550
1974	645	13,636	1,090	13,658	1,735	27,294
1975	723	16,470	1,378	16,575	2,101	33,045
1976	750	20,217	1,519	18,747	2,269	38,964
1977	845	22,113	1,727	20,974	2,572	43,087
1978[a]	--	26,352	--	24,406	--	50,758
1979	1,119	31,692	2,221	27,697	3,340	59,389
1980	1,227	37,002	2,437	32,959	3,664	69,961

SOURCE: Health Insurance Institute, *Source Book of Health Insurance Data*, 1971-72 through 1980-81 (New York, N.Y.: annually).
NOTE: "Insurance companies" includes loss of income benefit payments.
a. Data not available.

TABLE III-24. NUMBER OF PERSONS UNDER AGE 65 WITH HEALTH INSURANCE PROTECTION, BY TYPE OF COVERAGE IN MICHIGAN AND THE UNITED STATES, BY TYPE: 31 DECEMBER 1966-1980

(In thousands of persons)

	Hospital expense		Surgical expense		Regular physician's expense		Major medical expense[a]	
Year	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States
1966	7,242	148,589	6,725	137,448	5,967	110,754	--	55,475
1967	7.521	153,768	7,060	142,828	6,529	116,665	--	60,588
1968	7,897	159,335	7,444	147,252	6,822	122,054	--	65,040
1969	8,226	164,383	7,868	153,304	7,453	127,227	--	70,410
1970	8,226	164,210	7,868	153,352	7,453	132,349	--	76,164
1971	7,842	167,588	7,370	154,923	6,945	133,065	--	76,551
1972	8,017	167,019	7,560	155,173	6,899	139,704	2,634	78,154
1973	7,733	156,595	7,446	149,409	7,117	137,896	2,809	86,223
1974	8,017	161,600	7,979	156,800	7,981	149,300	3,082	89,300
1975	8,069	165,359	7,978	158,518	7,835	152,157	3,262	90,125
1976	8,011	164,027	7,798	156,852	7,823	152,867	3,303	91,278
1977	7,993	165,051	7,993	156,050	7,993	149,997	3,592	93,940
1978[b]	--	--	--	--	--	--	--	--
1979	8,105	169,140	8,105	163,427	8,090	154,285	4,549	103,495
1980	8,098	171,596	8,098	164,743	7,788	156,639	4,374	105,870

SOURCE: Health Insurance Institute, Source Book of Health Insurance, (New York, N.Y.: annually).

NOTE: The data refer to the net total of people protected, that is, duplication among persons protected by more than one kind of insuring organization or more than one insurance company policy, providing the same type of coverage has been eliminated. Data presented for those employed in Michigan.

a. Michigan data not available prior to 1972.

b. Data not available.

IV. EDUCATION

The Michigan Department of Education's Michigan Educational Statistics and Fact Book on Higher Education are the sources of most data relating to the educational system in this state. The department publishes numerous other items, among them Bulletin 1011. Many statistics about education for states and the nation are published by the U.S. Office of Education.

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TABLE IV-1. PERCENTAGE OF MICHIGAN PERSONS 25 YEARS OLD AND OVER WHO GRADUATED FROM HIGH SCHOOL, BY COUNTY: CENSUS 1970 AND 1980

County	Percentage		County	Percentage	
	1970	1980		1970	1980
Alcona	39.1	59.2	Lake	36.0	49.1
Alger	46.1	63.2	Lapeer	53.0	67.5
Allegan	46.3	64.8	Leelanau	53.8	76.8
Alpena	49.8	63.9	Lenawee	54.1	67.8
Antrim	50.3	68.3	Livingston	57.1	77.3
Arenac	38.7	53.4	Luce	42.3	58.5
Baraga	42.7	65.9	Mackinac	45.9	63.0
Barry	54.4	69.4	Macomb	55.8	69.2
Bay	47.8	64.4	Manistee	49.6	62.2
Benzie	53.2	67.4	Marquette	59.0	75.6
Berrien	52.1	64.8	Mason	52.5	66.1
Branch	49.2	65.3	Mecosta	55.4	69.6
Calhoun	53.2	67.8	Menominee	48.0	67.1
Cass	49.7	63.4	Midland	67.0	76.9
Charlevoix	53.0	69.3	Missaukee	38.8	59.5
Cheboygan	49.4	64.4	Monroe	45.0	63.4
Chippewa	54.1	64.7	Montcalm	49.4	63.8
Clare	43.3	57.8	Montmorency	42.7	60.1
Clinton	55.3	73.0	Muskegon	46.5	65.3
Crawford	51.6	70.9	Newaygo	45.0	60.6
Delta	49.4	68.7	Oakland	63.9	77.8
Dickinson	50.0	69.4	Oceana	48.8	63.6
Eaton	61.9	78.1	Ogemaw	42.2	57.5
Emmet	57.1	75.4	Ontonagon	49.7	64.6
Genesee	52.3	67.8	Osceola	46.5	61.7
Gladwin	41.5	57.4	Oscoda	44.4	59.3
Gogebic	49.7	65.6	Otsego	54.2	70.9
Grand Traverse	59.5	77.2	Ottawa	50.5	69.1
Gratiot	54.1	69.4	Presque Isle	39.6	56.9
Hillsdale	56.6	68.7	Roscommon	46.6	62.9
Houghton	45.3	63.2	Saginaw	50.6	65.8
Huron	41.8	57.3	St. Clair	51.4	65.0
Ingham	65.0	78.0	St. Joseph	53.8	65.7
Ionia	52.5	67.2	Sanilac	46.6	60.8
Iosco	57.2	67.9	Schoolcraft	42.5	58.7
Iron	48.3	63.4	Shiawassee	53.2	67.6
Isabella	54.1	70.8	Tuscola	47.0	62.6
Jackson	52.2	69.2	Van Buren	46.9	62.1
Kalamazoo	60.7	75.8	Washtenaw	67.5	80.9
Kalkaska	43.3	62.7	Wayne	47.5	61.4
Kent	55.0	70.9	Wexford	50.0	62.6
Keweenaw	33.0	49.8	MICHIGAN	52.8	68.0

SOURCE: Bureau of the Census, 1980 Census of Population, General Population Characteristics, Michigan (Washington, D.C.: 1982), Final Report PC80-1-B24; and similar document for 1970.

TABLE IV-2. STUDENT ENROLLMENT, TEACHERS, STUDENT-TEACHER RATIO, AVERAGE TEACHER SALARY, AND NUMBER OF SCHOOL DISTRICTS IN MICHIGAN, PUBLIC SCHOOLS ONLY, SCHOOL YEARS: 1956-1957 THROUGH 1980-1981

School year	Enrollment[a]	Number of teachers[b]	Student-teacher ratio	Average teacher's salary	Number of districts
1956-57	1,451,949	53,171	27.3	5,067	2,854
1957-58	1,581,121	55,794	28.3	5,340	2,499
1958-59	1,574,606	58,251	27.0	5,504	2,301
1959-60	1,624,262	60,394	26.9	5,699	2,149
1960-61	1,676,404	63,271	26.5	5,898	1,989
1961-62	1,733,705	66,024	26.3	6,091	1,794
1962-63	1,794,045	68,099	26.3	6,307	1,580
1963-64	1,856,895	69,376	26.8	6,474	1,515
1964-65	1,917,890	72,935	26.3	6,745	1,227
1965-66	1,968,403	76,047	25.9	6,896	993
1966-67	2,033,982	80,637	25.2	7,535	866
1967-68	2,079,704	85,346	24.4	8,238	712
1968-69	2,122,915	87,487	24.3	9,134	648
1969-70	2,164,386	89,049	24.3	10,045	638
1970-71	2,178,745	90,672	24.0	11,034	624
1971-72	2,212,505	91,190	24.8	11,671	608
1972-73	2,193,270	93,852	23.4	12,070	602
1973-74	2,159,966	94,221	22.9	12,852	597
1974-75	2,139,720	93,580	22.9	14,059	590
1975-76	2,127,917	92,677	23.0	15,064	587
1976-77	2,081,936	90,780	22.9	15,426	581
1977-78	2,023,944	90,312	22.4	16,445	579
1978-79	1,965,685	88,652	22.2	18,016	576
1979-80	1,910,385	87,487	21.8	19,663	575
1980-81	1,859,934	84,041	22.1	21,779	574

SOURCE: Michigan Department of Education, Analysis of Michigan Public School Revenues and Expenditures, 1953 through 1981, Bulletin 1011 (Lansing: annually): and Michigan Deaprtment of Education, special release (for number of teachers and ratio, 1955 through 1966).

a. Membership is defined as the number of students enrolled on the fourth Friday after the opening of the school year.

TABLE IV-3. NUMBER OF TEACHING POSITIONS, AVERAGE TEACHER'S SALARY, AND PUPIL MEMBERSHIP OF PUBLIC SCHOOLS IN MICHIGAN, BY SIZE OF SCHOOL DISTRICT: 1970-1971 AND 1980-1981

Size of district	Number of districts		Teaching position		Average teacher's salary		Audited Pupil membership, Septmeber	
	1970-1971	1980-1981	1970-1971	1980-1981	1970-1971	1980-1981	1970-1971	1980-1981
50,000 and over	1	1	11,136	9,414	$11,475	$23,054	89,382	221,941
20,000 - 49,999	12	8	11,528	9,255	11,930	24,045	239,662	217,352
10,000 - 19,999	20	15	12,340	9,140	11,825	23,659	285,483	201,723
5,000 - 9,999	64	54	18,509	17,103	11,368	23,438	442,596	376,107
4,500 - 4,999	14	14	2,672	3,015	10,767	22,122	66,211	66,424
4,000 - 4,499	17	13	2,914	2,516	10,667	21,287	71,837	55,006
3,500 - 3,999	28	22	4,270	3,754	10,674	21,000	102,865	83,100
3,000 - 3,499	18	35	2,415	5,133	10,211	21,286	58,426	112,835
2,500 - 2,999	31	38	559	4,651	10,076	20,948	86,030	103,166
2,000 - 2,499	63	54	5,783	5,489	10,052	19,588	40,414	119,855
1,500 - 1,999	65	72	4,780	5,788	9,690	18,650	16,072	124,498
1,000 - 1,499	83	79	4,361	4,623	9,721	17,856	4,432	97,287
Below 500	129	84	835	884	8,387	15,456	17,855	15,669
500 - 999	79	85	2,570	3,276	9,070	17,160	57,480	64,971
TOTAL	624	574	90,672	84,041	11,034	21,779	2,178,745	1,859,934

SOURCE: Michgan Department of Education, *Analysis of Michigan Public School Revenues and Expenditures*, 1970-1971 and 1980-1981, *Bulletin 1011* (Lansing: annually).

TABLE IV-4. PUBLIC AND NONPUBLIC SCHOOL MEMBERSHIP IN MICHIGAN: 1970-1971 THROUGH 1981-1982

School year	Public K-12 membership[a]	Nonpublic K-12 membership[b]	Total membership	Nonpublic school membership as percentage of total membership
1970-71	2,178,746	274,692	2,453,438	11.2
1971-72	2,212,523	223,836	2,436,359	9.2
1972-73	2,193,270	220,284	2,413,554	9.1
1973-74	2,159,966	215,302	2,375,268	9.1
1974-75	2,139,720	210,347	2,350,067	9.0
1975-76	2,127,917	209,466	2,337,383	9.0
1976-77	2,081,936	212,358	2,294,294	9.3
1977-78	2,025,166	209,208	2,234,374	9.4
1978-79	1,966,157	204,059	2,170,216	9.4
1979-80	1,910,437	202,032	2,112,469	9.6
1980-81	1,860,065	202,183	2,062,248	9.8
1981-82	1,793,322	202,748	1,996,070	10.3

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1980-81 (Lansing: 1981), Table 2, and special release.

a. Fourth Friday following Labor Day membership count; all pupils in membership in grades K-12 on the fourth Friday following Labor Day of each year as defined by rules promulgated by the State Board of Education.

b. The nonpublic K-12 membership figures are unaudited and may include incomplete data.

TABLE IV-5. ENROLLMENT BY GRADES IN MICHIGAN PUBLIC SCHOOLS, ON THE FOURTH FRIDAY FOLLOWING LABOR DAY: 1973-1982

Grade	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82
K	153,824	155,987	159,981	152,787	136,843	129,592	125,332	122,455	116,753
1	151,934	147,344	149,484	154,492	149,567	135,997	128,961	123,662	119,175
2	150,285	146,946	141,795	143,778	148,878	144,113	130,838	123,337	116,583
3	153,911	146,188	141,906	137,875	139,365	144,565	140,107	126,503	118,002
4	161,068	151,769	143,911	139,795	135,434	136,680	141,608	136,255	122,605
5	163,071	159,768	149,672	142,170	137,803	133,776	134,610	139,185	132,651
6	164,660	162,093	158,018	148,637	141,603	137,098	133,242	133,698	136,780
7	171,278	166,923	163,788	159,610	149,898	142,851	138,511	133,885	132,859
8	168,500	170,013	165,012	162,193	157,603	148,293	140,782	135,966	130,218
9	176,258	175,558	177,307	174,405	171,649	166,411	156,999	149,403	142,775
10	175,096	173,641	173,314	172,489	166,038	161,592	156,850	146,734	137,584
11	159,358	158,309	158,655	157,875	155,259	149,912	145,963	142,779	134,019
12	139,458	141,910	143,365	143,093	139,565	138,931	132,476	130,699	128,326
Other[a]	71,265	83,271	101,709	92,737	95,661	96,346	104,158	115,504	124,992
TOTAL	2,159,966	2,139,720	2,127,917	2,081,936	2,025,166	1,966,157	1,910,437	1,860,065	1,793,322

SOURCE: Michigan Department of Education, Michigan Educational Statistics, (Lansing: annually), Table 3, and special release for (1980-81 and 1981-82 data).

[a] Includes students of elementary and secondary ungraded classes, ungraded special needs and postgraduate. Does not include prekindergarteners.

TABLE IV-6. MICHIGAN NONPUBLIC SCHOOL MEMBERSHIP, BY GRADE: 1973-1974 THROUGH 1981-1982

Grade	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82
K	5,842	6,871	8,825	9,937	9,882	10,166	11,288	11,950	13,085
1	16,655	16,089	16,910	18,479	17,704	16,479	16,432	16,749	17,420
2	17,746	16,958	16,571	17,415	18,563	17,745	16,436	16,505	16,672
3	18,461	18,046	17,607	17,720	17,565	18,370	17,765	16,751	16,604
4	20,109	18,268	18,135	17,844	17,317	17,389	18,333	17,909	16,992
5	20,756	19,796	18,823	18,602	18,200	17,345	17,502	18,739	18,065
6	21,017	20,222	19,890	19,227	18,758	18,179	17,559	17,688	18,883
7	20,516	19,984	19,562	19,532	18,530	17,925	17,366	17,093	17,263
8	19,961	19,981	19,247	18,949	18,844	17,442	17,226	16,782	16,503
9	14,603	14,697	14,372	14,460	14,522	14,191	13,706	13,700	13,537
10	13,614	13,795	13,577	13,486	13,571	13,408	13,323	12,896	12,956
11	12,807	12,720	12,966	12,898	12,896	12,606	12,612	12,628	12,121
12	12,188	12,139	12,207	12,302	12,328	12,235	12,031	12,148	12,044
Other[a]	1,027	781	774	1,507	528	579	453	645	603
TOTAL	215,302	210,347	209,466	212,358	209,208	204,059	202,032	202,183	202,748
Change from previous year									
Number	-4,982	-4,955	-881	2,892	-3,150	-5,149	-2,027	-151	-565
Percent	-2.3	-2.3	-0.4	1.4	-1.5	-2.5	-1.0	-.1	-.03

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1977-78 (Lansing: 1978), Table 4, and special release.

NOTE: Data are unaudited.

a. Does not include prekindergarten students. Includes special education and part-time students.

TABLE IV-7. PUBLIC SCHOOL STAFF IN MICHIGAN, 1978-1979, THROUGH 1981-1982

(Full-time equivalent)

Staff category	1978-1979	1979-1980	1980-1981	1981-1982
Instructional staff				
Professional				
Classroom teachers	90,686	89,840	86,619	81,746
Other teachers	843	632	490	429
Attendance personnel	232	257	251	225
Social workers	767	804	813	681
Guidance staff	3,063	3,040	2,894	2,718
Health personnel	407	447	482	414
Psychological staff	493	532	543	514
Speech and audiology	703	912	970	900
Other pupil services	395	584	703	603
Consultants	1,167	1,255	1,007	971
Supervision and direction	833	881	926	817
Librarians	1,845	1,804	1,740	1,563
Other staff services and audio-visual	232	230	378	278
Nonprofessional				
Teacher aides	11,426	11,839	11,165	9,200
Other	1,111	1,040	1,061	833
Library aides	1,620	1,489	1,420	1,190
Secretary-clerical aides	2,772	2,571	2,375	2,090
Other aides	1,293	1,131	1,090	774
Other instructional support	269	297	286	202
TOTAL	120,157	119,585	115,213	106,148
Noninstructional staff				
Professional				
Executive administration	1,588	1,492	1,476	1,365
Fiscal service staff	588	560	603	589
Data processing staff	113	122	109	110
Principals	3,358	3,270	3,191	3,109
Assistant principals	1,442	1,445	1,432	1,381
Other professionals	1,056	993	1,028	1,012
Nonprofessional				
School food service staff	12,904	12,447	12,694	11,458
Transportation staff	12,204	12,316	12,040	11,511
Operation and maintenance staff	17,700	17,688	17,400	16,015
Data processing staff	251	302	310	285
Secretary and clerical	9,507	9,841	9,945	9,395
Other	2,034	2,019	1,875	1,264
TOTAL	62,745	62,495	62,103	57,494
GRAND TOTAL	182,902	182,080	177,316	163,642

SOURCE: Michigan Department of Education, special release.

TABLE IV-8. GENERAL FUND REVENUE SOURCES AND CURRENT OPERATING EXPENDITURES FOR PUBLIC SCHOOLS IN MICHIGAN: 1970-1971 THROUGH 1980-1981

School year	Revenues Local ($1,000)	 State ($1,000)	 Federal ($1,000)	 Other[a] ($1,000)	 Total[b] ($1,000)	Per pupil revenue	Total current operating expenditures ($1,000)	Per pupil current operating expenditures
1970-71	1,037,042	754,799	81,034	5,534	1,878,408	862.15	1,790,120	821.63
1971-72	1,148,771	798,505	102,418	4,824	2,054,519	928.60	1,935,035	874.59
1972-73	1,212,837	859,463	112,945	5,096	2,190,341	998.66	2,085,335	950.79
1973-74	1,378,727	45,116	116,182	4,977	2,445,002	1,131.96	2,271,936	1,051.86
1974-75	1,544,679	991,396	145,713	5,714	2,687,502	1,256.00	2,548,409	1,191.01
1975-76	1,715,734	1,028,155	161,897	4,644	2,910,430	1,367.74	2,772,531	1,302.94
1976-77	1,614,153	1,193,332	149,280	6,715	2,963,479	1,423.42	2,934,395	1,409.46
1977-78	1,804,754	1,290,231	192,513	5,547	3,293,046	1,627.04	3,215,655	1,588.81
1978-79	1,993,161	1,349,221	215,510	6,433	3,564,326	1,813.27	3,500,835	1,780.97
1979-80	2,273,569	1,377,578	226,782	3,837	3,881,765	2,0[illegible].93	3,826,569	2,003.04
1980-81	2,633,766	1,207,740	254,153	4,468	4,100,128	2,204.45	4,121,362	2,215.86

SOURCE: Michigan Department of Education, Analysis of Michigan Public School Revenues and Expenditures, 1970 through 1981, Bulletin 1011 (Lansing: annually).

NOTE: General fund is the fund used to record the operations of the school district pertaining to education, except those specifically described under Building and Site and Debt Retirement funds. Current operating expenditures are the basic expenses of a school district including expenditures for instruction, administration, attendance, health, transportation, fixed charges, operation of plant, and maintenance of plant. The current operating expenditures exclude capital outlay, community services, student services, and outgoing transfers.

a. Intermediate sources, gifts, and bequests.
b. Excludes incoming transfers.

TABLE IV-9. PUPILS AND SCHOOLS PARTICIPATING IN SCHOOL LUNCH PROGRAM IN MICHIGAN: FISCAL YEARS 1965-1981

Year	Number of schools participating[a,b]	Pupils participating[b]		
		Number (1,000)	Federal cost mill $	Percentage of total enrollment[c]
1965	2,228	513	n.a.	22.7
1966	2,330	556	n.a.	23.7
1967	2,458	586	n.a.	24.6
1968	2,440	560	n.a.	23.3
1969	2,506	588	5.0	23.9
1970	2,545	654	6.5	37.7
1971	2,757	692	12.9	28.4
1972	2,943	675	16.3	27.4
1973	2,840	708	24.8	28.7
1974	2,976	756	26.2	46.3
1975-76	3,028	712	33.5	46.6
1976-77	2,768	775	38.1	46.2
1977-78	3,256	830	46.7	48.7
1978-79	n.a.	847	47.8	49.8
1979-80	n.a.	919	54.9	50.2
1980-81	n.a.	903	67.3	n.a.

SOURCE: Bureau of the Census, *Statistical Abstract of the United States,* 1966 through 1981 (Washington, D.C.: annually).

a. Public and private elementary and secondary schools; private schools, estimated.

b. Data are for December of the fiscal years 1965-1968.

c. Based upon total enrollment in public schools in the fall of the fiscal year and total enrollment in private schools in the previous school year.

n.a.: not available

TABLE IV-10. EARNED DEGREES CONFERRED BY HIGHER EDUCATIONAL INSTITUTIONS IN MICHIGAN AND THE UNITED STATES, BY SEX AND LEVEL OF DEGREE: 1969-1979

Year	Bachelor's and first professional		Master's and second professional		Doctor's degrees (Ph.D., Ed.D. etc.)	
	Men	Women	Men	Women	Men	Women
			Michigan Publicly controlled			
1969-70	16,789	13,001	6,642	4,556	1,387	183
1970-71	17,855	13,391	7,219	5,089	1,539	238
1971-72	18,262	14,181	7,446	5,194	1,433	261
1972-73	19,238	15,089	7,276	5,218	1,429	306
1973-74	18,764	14,332	7,262	5,592	1,243	328
1974-75	17,721	14,015	7,850	5,920	1,295	311
1975-76	17,762	13,838	8,209	6,636	1,105	373
1976-77	15,888	13,335	8,194	6,818	1,096	361
1977-78	17,051	14,043	7,775	6,792	941	355
1978-79	16,654	14,547	7,356	6,515	965	408
			Privately controlled			
1969-70	4,312	2,601	485	360	7	0
1970-71	4,432	2,595	590	363	14	2
1971-72	4,481	2,578	601	408	16	0
1972-73	4,402	2,466	620	389	21	2
1973-74	4,727	2,589	591	372	10	1
1974-75	4,540	2,622	660	457	26	3
1975-76	4,982	2,799	666	494	15	5
1976-77	3,934	2,784	591	495	35	12
1977-78	4,748	3,038	565	426	37	5
1978-79	4,973	3,403	633	392	32	12
			Total			
1969-70	21,101	15,602	7,127	4,916	1,394	183
1970-71	22,287	15,986	7,809	5,452	1,553	240
1971-72	22,743	16,759	8,047	5,602	1,449	261
1972-73	23,640	17,545	7,896	5,607	1,450	308
1973-74	23,491	16,921	7,853	5,964	1,253	329
1974-75	22,251	16,637	8,510	6,377	1,321	314
1975-76	22,743	16,637	8,037	6,042	1,538	480
1976-77	19,822	16,119	8,785	7,313	1,131	373
1977-78	21,799	17,081	8,340	7,218	978	360
1978-79	21,627	17,950	7,989	6,907	997	420

TABLE IV-10. EARNED DEGREES CONFERRED BY HIGHER EDUCATIONAL INSTITUTIONS IN MICHIGAN AND THE UNITED STATES, BY SEX AND LEVEL OF DEGREE: 1969-1979 (cont.)

	Bachelor's and first professional		Master's and second professional		Doctor's degrees (Ph.D., Ed.D. etc.)	
Year	Men	Women	Men	Women	Men	Women
			United States Publicly controlled			
1969-70	307,514	230,661	79,558	55,793	16,913	2,276
1970-71	328,258	250,428	88,246	64,059	18,064	2,730
1971-72	352,824	270,374	96,468	71,481	18,577	3,205
1972-73	372,890	285,592	99,229	75,991	18,587	3,783
1973-74	383,117	297,812	101,722	83,782	17,897	3,920
1974-75	367,615	296,816	103,509	91,157	17,567	4,612
1975-76	367,854	299,037	105,968	101,241	16,902	4,861
1976-77	336,291	296,242	104,471	104,276	16,119	5,107
1977-78	354,137	306,454	99,206	103,685	15,085	5,386
1978-79	337,628	307,699	91,704	99,411	14,968	5,834
			Privately controlled			
1969-70	179,435	115,712	46,588	27,448	8,979	1,704
1970-71	185,962	119,738	50,344	28,837	9,470	1,849
1971-72	191,828	122,858	53,617	31,208	9,518	2,069
1972-73	195,471	126,754	55,771	33,534	9,988	2,432
1973-74	196,694	131,031	56,622	36,133	9,477	2,532
1974-75	190,039	133,452	58,606	40,379	9,252	2,655
1975-76	193,905	136,700	61,777	44,015	9,371	2,942
1976-77	158,940	132,337	62,418	45,572	8,910	2,987
1977-78	189,482	147,092	62,502	47,423	8,584	3,101
1978-79	187,684	151,947	60,570	48,202	8,509	3,353
			Total			
1969-70	486,949	346,373	126,146	83,241	25,892	3,980
1970-71	514,220	370,166	138,590	92,896	27,534	4,579
1971-72	544,652	393,232	150,085	102,689	28,095	5,274
1972-73	568,361	412,346	155,000	109,525	28,575	6,215
1973-74	579,811	428,843	158,344	119,915	27,374	6,452
1974-75	557,654	430,268	162,115	131,536	26,819	7,267
1975-76	561,759	435,745	167,745	145,256	26,273	7,803
1976-77	551,789	441,219	168,210	150,031	25,150	8,094
1977-78	543,619	453,546	161,708	151,108	23,669	8,487
1978-79	529,362	465,546	152,274	147,613	23,477	9,187

SOURCE: National Center for Education Statistics, Earned Degrees Conferred, 1975-76, Summary Data (Washington, D.C.: annually).

TABLE IV-11. OPENING FALL ENROLLMENTS BY TYPE OF MICHIGAN HIGHER EDUCATION INSTITUTIONS (HEADCOUNT): 1960-1981, AND FISCAL-YEAR EQUATED 1974-1981

Year	Public 4-year institutions	Public 2-year institutions	Private institutions	Total
		Headcount		
1960	107,658	27,220	36,398	171,285
1961	112,082	31,619	38,278	181,979
1962	119,834	34,356	39,700	193,890
1963	129,113	38,001	40,611	207,725
1964	143,114	46,123	43,472	232,709
1965	162,312	58,216	47,896	268,424
1966	176,487	69,496	49,462	295,445
1967	187,708	79,698	50,461	317,867
1968	198,419	95,965	50,777	345,161
1969	208,323	115,299	50,759	374,381
1970	217,802	125,553	52,348	395,703
1971	220,165	132,059	51,335	403,559
1972	218,667	137,634	50,658	406,959
1973	221,893	152,715	51,160	425,768
1974	229,627	173,643	55,273	458,543
1975	241,769	197,199	61,081	500,049
1976	236,831	187,622	60,372	484,825
1977	236,618	186,876	60,497	483,991
1978	236,035	187,649	62,810	486,494
1979	240,600	209,554	65,333	514,488
1980	242,907	207,816	66,216	516,939
1981	235,027	211,871	67,509	514,407
		Fiscal-year equated		
1974	200,556	89,861	48,205	338,622
1975	207,611	109,484	53,151	370,246
1976	213,916	111,646	51,354	376,619
1977	207,284	109,043	51,014	367,341
1978	203,895	108,243	50,647	362,785
1979	201,420	106,041	53,177	360,638
1980	204,713	115,885	n.a.	n.a.
1981	207,073	122,818	n.a.	n.a.

SOURCE: Michigan Department of Education, Michigan Educational Statistics, 1977-78 (Lansing: 1978), Table 21 (1976); and special release.

TABLE IV-12. OPENING FALL ENROLLMENT (HEADCOUNT) IN INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN, BY INSTITUTION: 1978-1982 (cont.)

Institution and city	1978	1979	1980	1981	1982
Public community and junior colleges (cont.)					
Grand Rapids Junior College, Grand Rapids	7,516	14,233[b]	8,871	8,905	9,207
Henry Ford Community College, Dearborn	17,191	17,191[c]	16,231	16,075	16,403
Highland Park Community College, Highland Park	2,233	2,323	2,654	2,706	2,625
Jackson Community College, Jackson	6,506	8,554	7,085	8,751	5,251
Kalamazoo Valley Community College, Kalamazoo	6,490	6,663	7,069	7,477	7,895
Kellogg Community College, Battle Creek	4,304	7,368	5,855	5,369	5,193
Kirtland Community College, Roscommon	1,118	1,075	1,075[d]	1,418	1,335
Lake Michigan College, Benton Harbor	3,250	3,301	3,602	3,013	2,977
Lansing Community College, Lansing	18,313	20,129	18,884	19,143	19,779
Macomb County Community College, Warren	25,032	25,619	28,429	28,090	28,174
Mid-Michigan Community College, Gladwin	1,632	1,660	2,007	1,582	1,573
Monroe County Community College, Monroe	2,020	1,994	2,151	2,470	2,702
Montcalm Community College, Sidney	1,333	1,650	1,544	1,223	1,237
Muskegon Community College, Muskegon	5,011	5,353	5,171	5,100	5,009
North Central Michigan College, Petoskey	1,519	1,836	1,881	1,965	1,681
Northwestern Michigan College, Traverse City	2,731	2,971	3,389	3,432	3,448
Oakland Community College, Bloomfield Hills	19,995	20,683	23,554	24,000	25,359
St. Clair County Community College, Port Huron	3,165	3,350	3,634	3,655	3,879
Schoolcraft College, Livonia	9,410	7,904	8,077	8,527	8,509
Southwestern Michigan College, Dowagiac	1,844	2,001	2,135	2,238	2,465
Washtenaw Community College, Ann Arbor	7,465	7,622	8,445	8,343	8,247
Wayne County Community College, Detroit	15,610	20,101	18,386	20,325	19,475
West Shore Community College, Scottville	789	927	1,011	933	1,081
TOTAL	187,649	209,554	207,816	211,871	210,968

TABLE IV-12. OPENING FALL ENROLLMENT (HEADCOUNT) IN INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN, BY INSTITUTION: 1978-1982 (cont.)

Institution and city	1978	1979	1980	1981	1982
		Independent institutions			
Adrian College, Adrian	824	945	1,116	1,242	1,222
Albion College, Albion	1,784	1,781	1,860	1,876	1,742
Allan/Touro College, Southfield	--	--	--	20	--
Alma College, Alma	1,183	1,201	1,198	1,110	1,059
Andrews University, Berrien Springs	2,924	2,983	3,018	3,083	2,851
Aquinas College, Grand Rapids	1,918	2,163	2,529	2,753	2,743
Baker Jr. College of Business, Flint	1,312	1,171	1,311	1,427	1,762
Calvin College, Grand Rapids	3,977	3,988	4,058	3,919	3,807
Calvin Theological Seminary, Grand Rapids	210	209	190	185	210
Center for Creative Studies	1,009	1,034	1,086	1,103	1,113
Center for Humanistic Studies, Detroit	--	--	--	55	69
Chapin Jr. College of Business, Oxford	--	--	--	9	16
Cleary College, Ypsilanti	459	586	765	416	1,006
Concordia Lutheran Junior College, Ann Arbor	556	552	526	550	540
Cranbrook Academy of Art, Bloomfield Hills	145	158	148	150	140
Davenport College of Business, Grand Rapids	2,243	2,570	3,047	4,265	4,511
Detroit Bible College, Detroit	301	388	375	375^{e}	n.a.
Detroit College of Business, Dearborn	1,887	2,198	2,368	2,789	2,965
Detroit College of Law, Detroit	845	816	848	874	877
Duns Scotus College, Southfield	59	35	n.a.	n.a.	n.a.
General Motors Institute, Flint	2,248	2,241	2,327	2,389	2,433
Grace Bible College, Grand Rapids	215	198	176	241	170
Grand Rapids School of Bible, Grand Rapids	570	583	532	n.a.	n.a.
Great Lakes Bible College, Lansing	232	206	182	178	176
Grand Rapids Baptist, Grand Rapids	1,137	1,144	1,216	1,132	1,077
Hillsdale College, Hillsdale	989	1,035	1,035	1,043	1,044

TABLE IV-12. OPENING FALL ENROLLMENT (HEADCOUNT) IN INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN, BY INSTITUTION: 1978-1982 (cont.)

Institution and city	1978	1979	1980	1981	1982
Independent institutions (cont.)					
Hope College, Holland	2,371	2,355	2,464	2,458	2,530
John Wesley College at Owosso, Owosso	221	66	n.a.	n.a.	n.a.
Jordon College, Cedar Springs	281	914	683	654	1,025
Kalamazoo College, Kalamazoo	1,444	1,438	1,452	1,367	1,234
Kendall School of Design	n.a.	416	482	505	577
Lawrence Institute of Technology, Southfield	4,861	4,991	5,260	5,703	5,868
Lewis College of Business	560	455	487	609	515
Madonna College, Livonia	3,011	3,131	3,213	3,385	3,409
Marygrove College, Detroit	871	958	1,025	1,149	1,189
Mercy College of Detroit, Detroit	2,272	2,281	2,484	2,119	2,106
Merrill-Palmer Institute, Detroit	115	97	--	--	--
Michigan Christian Junior College, Rochester	312	262	338	319	343
Muskegon Business College, Muskegon	1,017	994	1,125	1,175	1,253
Nazareth College, Nazareth	620	524	531	528	571
Northwood Institute, Midland	1,653	1,789	1,945	1,929	1,846
Olivet College, Olivet	671	628	668	637	561
Oxford School of Business, Oxford	--	--	--	133[f]	--
Reformed Bible College, Grand Rapids	235	234	209	206	222
Sacred Heart Seminary, Detroit	119	108	142	172	198
Saint John's Seminary	110	141	149	211	190
St. Mary's College, Orchard Lake	196	205	185	216	195
Shaw College at Detroit, Detroit	805	603	632	655	456
Siena Heights College, Adrian	1,131	1,327	1,420	1,478	1,404
Spring Arbor College, Spring Arbor	845	1,048	1,086	1,011	975
Suomi College, Hancock	537	440	578	510	558
Thomas Cooley Law School, Lansing	1,046	1,079	1,052	1,045	1,115
University of Detroit, Detroit	7,848	7,025	6,397	6,186	5,967
Walsh College of Accountancy and Business Administration, Troy	1,393	1,583	1,583[d]	1,707	1,388
St. Cyril and Methodius Seminary, Orchard Lake	--	--	--	73	92

TABLE IV-12. OPENING FALL ENROLLMENT (HEADCOUNT) IN INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN, BY INSTITUTION: 1978-1982 (cont.)

Institution and city	1978	1979	1980	1981	1982
Independent institutions (cont.)					
Yeshivath Beth Yehudah, Oak Park	--	--	--	64	231
Western Theological Seminary, Holland	141	124	104	130	122
TOTAL	62,810	64,333	66,216	67,509	67,673

SOURCE: Michigan Department of Education, special release.

NOTE: Enrollment statistics are based on actual headcounts of students enrolled in degree programs, unclassified students, and graduate students.

a. Community service enrollments (in fishing, knitting, dancing, and other "leisure time" classes) not included in Fall 1977 headcounts.

b. There was a surge in part-time enrollment.

c. 1978 data, 1979 data not available.

d. 1979 data, 1980 data not available.

e. 1980 data, 1981 data not available.

f. not previously listed.

TABLE IV-23. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 1 APRIL 1982: EXPENSE FOR 1982-1983 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE)

Institution	Tuition and fees	Room and board[a]	Books and personal[b]	Travel[c]	Total
		Public Colleges and Universities			
Central Michigan Univ.					
Mt. Pleasant	$ 1,337	$ 2,140	$ 750	$ 350	$ 4,577
Eastern Michigan Univ.					
Ypsilanti	1,196	2,270	750	350	4,566
Ferris State College					
Big Rapids	1,464	2,190	750	350	4,754
Grand Valley State College					
Allendale	1,380	2,290	750	350	4,770
Lake Superior State College					
Sault Ste. Marie	1,320	2,295	750	350	4,715
Michigan State University					
East Lansing					
Freshman, Sophomore	1,510	2,281	750	350	4,891
Junior, Senior	1,668	2,281	750	350	5,049
Michigan Technological Univ.					
Houghton	1,512	2,208	750	350	4,820
Northern Michigan University					
Marquette	1,395	2,199	750	350	4,694
Oakland Univ., Rochester					
Freshman, Sophomore	1,245	2,135	750	350	4,480
Junior, Senior	1,369	2,135	750	350	4,604
Saginaw Valley State College					
University Center	1,488	2,126	750	350	4,714
Univ. of Michigan, Ann Arbor					
Freshman, Sophomore	1,759	2,281	750	350	5,140
Junior, Senior	1,963	2,281	750	350	5,344
Univ. of Michigan/Dearborn					
Dearborn	1,328	1,500	750	650	4,228
University of Michigan/Flint					
Flint	1,180	1,500	750	650	4,080
Wayne State Univ., Detroit					
Freshman, Sophomore	1,670	1,500	750	650	4,570
Junior, Senior	1,940	1,500	750	650	4,840
Western Michigan University					
Kalamazoo					
Freshman, Sophomore	1,331	2,017	750	350	4,448
Junior, Senior	1,409	2,017	750	350	4,526
		Nonpublic colleges and universities			
Adrian College, Adrian	4,974	2,022	750	350	8,096
Albion College, Albion	5,546	2,492	750	350	9,138
Allan/Touro College,					
Southfield	3,205	1,500	750	650	6,105
Alma College, Alma	5,634	2,446	750	350	9,180
Andrews University					
Berrien Springs					
Undergraduate	4,975	2,670	750	350	8,745
Graduate	3,718	2,670	750	350	7,488
Aquinas College,					
Grand Rapids	4,498	2,314	750	350	7,912
Baker Jr. College of Bus.					
Flint	2,220	1,500	750	650	5,120

TABLE IV-13. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 1 APRIL 1982: EXPENSE FOR 1981-1983 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and board[a]	Books and personal[b]	Travel[c]	Total
Nonpublic colleges and universities					
Calvin College Grand Rapids	$ 3,950	$ 1,850	$ 750	$ 350	$ 6,900
Center for Creative Studies College of Art and Design Detroit	4,300	1,500	750	650	7,200
Chapin Jr. College of Bus. Oxford	1,800	1,500	750	650	4,700
Cleary College, Ypsilanti	2,670	1,500	750	650	5,570
Concordia Coll., Ann Arbor	2,750	2,106	750	350	5,956
Cranbrook Academy of Art Bloomfield Hills	4,410	2,150	750	350	7,660
Davenport College of Bus. Grand Rapids, Lansing Kalamazoo	3,360	2,175	750	350	6,635
D'etre Institute of Arts & Sciences, Grosse Pointe	3,900	1,500	750	650	6,800
Detroit College of Business Dearborn	2,593	1,500	750	650	5,493
Detroit College of Law Detroit					
Day	3,450	1,500	750	650	6,350
Evening	2,588	1,500	750	650	5,488
General Motors Institute Flint	1,864	1,650	600	280	4,394
Grace Bible College Grand Rapids	1,570	2,000	750	350	4,670
Grand Rapids Baptist College Grand Rapids	3,160	2,150	750	350	6,410
Hillsdale Coll., Hillsdale	5,370	2,620	750	350	9,090
Hope College, Holland	5,010	2,290	750	350	8,400
Jordan Coll., Cedar Springs	2,200	1,500	750	350	4,800
Kalamazoo Coll., Kalamazoo	6,492	2,430	750	350	10,022
Kendall School of Design Grand Rapids	3,345	1,500	750	650	6,245
Lawrence Inst. of Technology Southfield					
Undergraduate	1,890	1,500	750	650	4,790
Graduate	2,085	1,500	750	650	4,985
Lewis College of Business[d] Detroit	4,315	2,250	1,125	975	8,665
Madonna College, Livonia	1,958	2,030	750	350	5,088
Marygrove College, Detroit					
Undergraduate	3,775	2,300	750	350	7,175
Graduate	2,133	2,300	750	350	5,533
Mercy College of Detroit Detroit	3,200	1,950	750	350	6,250

TABLE IV-13. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 1 APRIL 1982: EXPENSE FOR 1982-1983 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and Board[a]	Books and personal[b]	Travel[c]	Total
Nonpublic colleges and universities (cont.)					
Michigan Christian Jr. College Rochester	$ 2,485	$ 2,000	$ 750	$ 350	$ 5,585
Muskegon Business College Muskegon	2,175	1,500	750	650	5,075
Nazareth College Nazareth	4,790	2,370	750	350	8,260
Northwood Institute, Midland	3,765	2,130	750	350	6,995
Olivet College, Olivet	4,955	2,435	750	350	8,490
Reformed Bible College Association, Detroit	2,480	1,950	750	350	5,530
Sacred Heart Seminary Detroit	2,550	1,400	750	350	5,050
Shaw College of Detroit Detroit	3,060	1,500	750	650	5,960
St. Mary's College Orchard Lake	2,100	2,100	750	350	5,300
Siena Heights College, Adrian					
Undergraduate	3,330	2,000	750	350	6,430
Graduate	2,088	2,000	750	350	5,188
Spring Arbor College Spring Arbor	4,400	1,800	750	350	7,300
Suomi College, Hancock	4,900	2,100	750	350	8,100
Thomas Cooley Law School[d] Lansing	3,645	2,250	1,125	975	7,995
University of Detroit Detroit	4,810	2,560	750	350	8,470
University of Detroit Detroit Graduate Programs					
College: Law, day	5,012	2,560	750	350	8,672
College: General graduate	2,954	2,560	750	350	6,614
College: Dentistry	8,300	2,560	750	350	11,960
Walsh College/Act. and Bus. Administration, Detroit					
Undergraduate	1,955	1,500	750	650	4,855
Graduate	1,562	1,500	750	650	4,462
William Tyndale College Detroit	2,250	2,200	750	650	5,850

TABLE IV-13. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 1 APRIL 1982: EXPENSE FOR 1982-1983 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and Board[a]	Books and personal[b]	Travel[c]	Total
		Public Community Colleges			
Alpena Comm. College					
Alpena					
Resident of district	$ 682	$ 1,500	$ 750	$ 650	$ 3,582
Non-resident of district	992	2,125	750	350	4,217
Bay De Noc Community College					
Escanaba					
Resident of district	635	1,500	750	650	3,535
Non-resident of district	868	1,800	750	350	3,768
Delta College, Univ. Center					
Resident of district	779	1,500	750	650	3,679
Non-resident of district	1,380	1,500	750	650	4,280
C.S. Mott Community College					
Flint					
Resident of district	795	1,500	750	650	3,695
Non-resident of district	981	1,500	750	650	3,881
Glen Oaks Community College					
Centreville					
Resident of district	704	1,500	750	650	3,604
Non-resident of district	952	1,500	750	650	3,852
Gogebic Comm. College					
Ironwood					
Resident of district	588	1,500	750	650	3,488
Non-resident of district	867	1,500	750	650	3,767
Grand Rapids Jr. College					
Grand Rapids					
Resident of district	744	1,500	750	650	3,644
Non-resident of district	1,240	1,500	750	650	4,140
Henry Ford Community College					
Dearborn					
Resident of district	733	1,500	750	650	3,633
Non-resident of district	981	1,500	750	650	3,881
Highland Park Comm. College					
Highland Park					
Resident of district	650	1,500	750	650	3,550
Non-resident of district	950	1,500	750	650	3,850
Jackson Comm. Coll., Jackson					
Resident of district	837	1,500	750	650	3,737
Non-resident of district	1,085	1,500	750	650	3,985
Kalamazoo Valley Comm. College					
Kalamazoo					
Resident of district	620	1,500	750	650	3,520
Non-resident of district	1,240	1,500	750	650	4,140
Kellogg Community College					
Battle Creek					
Resident of district	667	1,500	750	650	3,567
Non-resident of district	1,085	1,500	750	650	3,985

TABLE IV-13. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 1 APRIL 1982: EXPENSE FOR 1982-1983 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and Board[a]	Books and personal[b]	Travel[c]	Total
Public Community Colleges (cont.)					
Kirtland Community College					
Roscommon					
Resident of district	$ 610	$ 1,500	$ 750	$ 650	$ 3,510
Non-resident of district	790	1,500	750	650	3,690
Lake Michigan College					
Benton Harbor					
Resident of district	710	1,500	750	650	3,610
Non-resident of district	950	1,500	750	650	3,850
Lansing Comm. Coll. Lansing					
Resident of district	645	1,500	750	650	3,545
Non-resident of district	960	1,500	750	650	3,860
Macomb County Comm. College					
Warren					
Resident of district	868	1,500	750	650	3,768
Non-resident of district	1,441	1,500	750	650	4,341
Mid-Michigan Comm. College					
Harrison					
Resident of district	599	1,500	750	650	3,499
Non-resident of district	785	1,500	750	650	3,685
Monroe County Comm. College					
Monroe					
Resident of district	590	1,500	750	650	3,490
Non-resident of district	860	1,500	750	650	3,760
Montcalm Comm. Coll., Sidney					
Resident of district	774	1,500	750	650	3,674
Non-resident of district	984	1,500	750	650	3,884
Muskegon Comm. College					
Muskegon					
Resident of district	713	1,500	750	650	3,613
Non-resident of district	992	1,500	750	650	3,892
North Central Michigan College					
Petoskey					
Resident of district	556	1,500	750	650	3,456
Non-resident of district	736	2,020	750	350	3,856
Northwestern Michigan College					
Traverse City					
Resident of district	936	1,500	750	650	3,836
Non-resident of district	1,512	2,130	750	350	4,742
Oakland Comm. College					
Bloomfield Hills					
Resident of district	652	1,500	750	650	3,552
Non-resident of district	962	1,500	750	650	3,862

TABLE IV-13. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 1 APRIL 1982: EXPENSE FOR 1982-1983 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and Board[a]	Books and personal[b]	Travel[c]	Total
Public Community Colleges (cont.)					
St. Clair Comm. College					
Port Huron					
Resident of district	$ 690	$ 1,500	$ 750	$ 650	$ 3,590
Non-resident of district	1,077	1,500	750	650	3,977
Schoolcraft Coll., Livonia					
Resident of district	707	1,500	750	650	3,607
Non-resident of district	955	1,500	750	650	3,855
Southwestern Michigan Coll.					
Dowagiac					
Resident of district	651	1,500	750	650	3,551
Non-resident of district	775	1,500	750	650	3,675
Washtenaw Comm. College					
Ann Arbor					
Resident of district	555	1,500	750	650	3,455
Non-resident of district	945	1,500	750	650	3,845
Wayne County Comm. College					
Detroit					
Resident of district	720	1,500	750	650	3,620
Non-resident of district	1,020	1,500	750	650	3,920
West Shore Comm. Coll.					
Scottville					
Resident of district	649	1,500	750	650	3,549
Non-resident of district	979	1,500	750	650	3,879
Scholarship Eligible Colleges Only					
Non-Degree Granting Non-Profit Eligible Institutions					
Blodgett Memorial Medical Center[d]					
School of Nursing, Grand Rapids					
1st year[e]	1,344	1,500	750	650	4,244
2nd & 3rd years	1,332	1,666	833	722	4,553
Bronson Methodist Hospital					
School of Nursing (W. MI)					
Kalamazoo					
1st year	2,128	1,666	833	389	5,016
2nd year	1,203	1,666	833	389	4,091
3rd year	726	1,000	500	233	2,459
Butterworth Hospital School					
of Nursing (G.R.J.C.)					
1st year	1,064	1,500	750	350	3,664
2nd and 3rd year	1,140	1,666	750	389	3,945
Detroit Receiving Hospital					
School of Radiologic Technology					
Detroit	325	1,500	750	650	3,225
Detroit Institute of Commerce					
Detroit	3,035	1,500	750	650	5,935
Henry Ford Hospital School					
of Nursing (U of M - Dearborn)					
Detroit					
1st year	2,072	1,588	927	428	5,005
2nd year	1,530	1,300	750	350	3,930

TABLE IV-13. ESTIMATE OF MICHIGAN RESIDENT STUDENT EXPENSES AT MICHIGAN INSTITUTIONS OF HIGHER EDUCATION AS OF 1 APRIL 1982: EXPENSE FOR 1982-1983 ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) (cont.)

Institution	Tuition and fees	Room and Board[a]	Books and personal[b]	Travel[c]	Total
Scholarship Eligible Colleges Only (cont.)					
Non-Degree Granting Non-Profit Eligible Institutions					
Hurley Medical Center School of Nursing					
Flint					
1st year	$ 1,148	$ 1,500	$ 750	$ 350	$ 3,748
2nd year	1,058	1,500	750	350	3,658
Mercy Central School of Nursing (Aquinas College)					
Grand Rapids					
1st year	3,761	1,666	833	389	6,649
2nd year	2,526	1,666	833	389	5,414
Mercy School of Nursing					
Detroit					
1st year	2,055	1,666	833	389	4,943
2nd year					
Saginaw Bus. Institute					
Saginaw	2,409	1,500	750	650	5,309
Shapero School of Nursing of Sinai Hospital					
Detroit	855	2,000	1,000	867	4,722
South Central Michigan School of Practical Nursing					
(Kellogg C.C.) Coldwater	3,900	1,833	917	794	7,444
St. Joseph Hospital School of Radiologic Technology	300	2,000	1,000	867	4,167

Room and Board is based upon length of program. Most institutions with dormitory facilities do not provide meals. Students are charged for room only and must purchase meals at the cafeteria. For these institutions the base figure of $1,500 was used to determine room and board.

Travel allowance is based upon dormitory facilities and length of program.

Reported to S.F.A.S. - Department of Education as of 15 March reporting date.

SOURCE: Michigan Department of Education, special release.

NOTE: Figures were developed by the Michigan Department of Education office of student financial assistance services for use in the scholarship and tuition grant programs under their jurisdiction.

a. A standard of $1,500 is assumed at institutions where the dormitories can accommodate less than 10 percent of the student body.

b. A standard of $750 is assumed at most institutions.

c. A standard of $350 is assumed at institutions where the dormitories can accommodate 10 percent or more of the student body; a standard of $650 is assumed where the dormitories can accommodate less than 10 percent.

d. Figures for Lewis College of Business, Detroit, and Cooley Law School, Lansing, represent 12 month budget figures.

e. Tuition based upon students attending Blodgett and Grand Rapids Junior College. For students attending Calvin College, the college must monitor for the higher tuition charges.

TABLE IV-14. EDUCATIONAL AND GENERAL REVENUES OF MICHIGAN PUBLIC FOUR-YEAR INSTITUTIONS OF HIGHER EDUCATION: FISCAL YEARS 1979-1981

(In thousands of dollars)

Institution		Tuition and fees	State appropriations	Sales and service: Educational activities	Sales and service: Auxiliary enterprises	Other	Total
Central Michigan University	1979	18,759	26,291	1,870	14,382	3,861	65,163
	1980	20,876	28,676	2,043	15,538	4,232	71,365
	1981	23,399	28,121	2,297	17,169	4,527	75,513
Eastern Michigan University	1979	12,485	30,967	677	10,728	5,399	60,256
	1980	12,992	34,054	793	11,456	7,552	66,847
	1981	15,018	32,934	813	12,396	8,045	69,206
Ferris State College	1979	8,456	19,416	1,153	12,927	2,742	44,694
	1980	10,316	21,388	1,533	13,855	3,841	50,933
	1981	12,519	20,734	1,931	14,765	7,573	57,522
Grand Valley State College	1979	4,871	11,794	678	2,664	3,967	23,974
	1980	5,337	12,879	720	2,953	4,372	26,261
	1981	5,374	12,622	678	3,250	4,454	26,378
Lake Superior State College	1979	1,658	5,039	10	2,802	1,069	10,578
	1980	1,779	5,557	10	3,127	1,285	11,758
	1981	2,193	5,614	16	3,230	1,331	12,384
Michigan State University	1979	52,806	129,324	13,136	60,824	63,171	319,261
	1980	58,720	142,737	14,434	66,944	74,567	357,402
	1981	68,434	138,529	15,469	71,070	82,567	376,069
Michigan Technical University	1979	7,052	17,295	637	8,460	8,273	41,717
	1980	8,208	19,077	644	9,334	9,862	47,125
	1981	10,248	18,843	756	10,116	10,649	50,612
Northern Michigan University	1979	6,989	18,532	1,044	8,394	2,919	37,878
	1980	7,742	20,409	1,254	8,906	3,785	42,096
	1981	8,616	20,162	1,694	9,026	3,887	43,385
Oakland University	1979	7,473	17,498	1,309	8,423	5,125	39,828
	1980	8,616	19,345	1,403	9,122	6,516	45,002
	1981	10,449	18,761	1,254	9,952	6,619	47,035

TABLE IV-14. EDUCATIONAL AND GENERAL REVENUES OF MICHIGAN PUBLIC FOUR-YEAR INSTITUTIONS OF HIGHER EDUCATION: FISCAL YEARS 1979-1981 (cont.)

(In thousands of dollars)

Institution		Tuition and fees	State appropriations	Sales and service		Other	Total
				Educational activities	Auxiliary enterprises		
Saginaw Valley College	1979	2,040	5,864	99	1,260	1,083	10,346
	1980	2,333	6,529	196	1,479	1,221	11,758
	1981	3,225	6,346	195	1,618	1,261	12,645
University of Michigan[b]	1979	75,930	147,555	20,731	35,105	261,386	540,707[a]
	1980	85,421	160,322	21,839	42,230	310,019	619,831[a]
	1981	100,126	157,418	22,259	48,325	361,668	689,796[a]
Wayne State University	1979	32,504	90,810	3,751	8,308	40,396	175,769
	1980	35,755	97,172	4,480	10,802	36,670	184,879
	1981	40,517	89,450	4,347	11,683	37,898	183,895
Western Michigan University	1979	17,236	41,684	2,320	18,733	7,821	87,794
	1980	19,633	45,377	2,898	19,832	8,799	96,539
	1981	21,970	44,454	3,106	21,756	9,884	101,170
TOTAL	1979	248,259	562,069	47,415	193,010	407,212	1,457,965
	1980	277,728	613,522	52,247	215,578	472,721	1,631,796
	1981	322,088	593,988	54,815	234,356	540,363	1,745,610

SOURCE: Michigan Department of Education, special release.

a. Hospital revenues amounted to $134,462,526 in 1979, $159,642,000, and $207,717,000 in 1981.
b. Figures include Ann Arbor, Dearborn, and Flint operations.

TABLE IV-12. OPENING FALL ENROLLMENT (HEADCOUNT) IN INSTITUTIONS OF HIGHER EDUCATION IN MICHIGAN, BY INSTITUTION: 1978-1982

Institution and city	1978	1979	1980	1981	1982
Public baccalaureate institutions					
Central Michigan University, Mt. Pleasant	17,802	17,779	18,269	17,653	17,132
Eastern Michigan University, Ypsilanti	18,655	18,865	19,323	18,766	18,078
Ferris State College, Big Rapids	10,208	10,596	11,112	11,261	11,008
Grand Valley State College, Allendale	7,065	7,142	6,984	6,699	6,366
Lake Superior State College, Sault Ste. Marie	2,401	2,309	2,501	2,559	2,494
Michigan State University, East Lansing	46,567	47,355	47,316	44,887	42,730
Michigan Technological University, Houghton	7,130	7,690	7,865	7,779	7,640
Northern Michigan University, Marquette	8,995	9,452	9,379	9,073	8,377
Oakland University, Rochester	11,220	11,729	12,006	11,644	11,721
Saginaw Valley College, University Center	3,706	3,818	4,285	4,324	4,370
University of Michigan, Ann Arbor	36,577	36,158	37,171	35,677	35,629
University of Michigan, Dearborn	5,955	6,406	6,291	6,575	6,390
University of Michigan, Flint	3,884	4,122	4,410	4,609	5,025
Wayne State University, Detroit	33,423	34,337	33,408	31,522	29,775
Western Michigan University, Kalamazoo	22,447	22,842	22,641	21,999	20,580
TOTAL	236,035	240,600	242,907	235,027	227,315
Public community and junior colleges[a]					
Alpena Community College, Alpena	1,752	1,695	2,097	1,946	1,842
Bay de Noc Community College, Escanaba	1,192	1,480	1,531	1,621	1,626
C.S. Mott Community College, Flint	9,045	9,754	10,698	10,787	10,865
Delta College, University Center	9,148	9,585	9,996	10,013	10,279
Glen Oaks Community College, Centerville	1,031	1,224	1,224	1,173	1,244
Gogebic Community College, Ironwood	1,004	1,308	1,130	1,591	1,600

TABLE IV-15. EDUCATIONAL AND GENERAL EXPENDITURES OF MICHIGAN PUBLIC FOUR-YEAR INSTITUTIONS OF HIGHER EDUCATION: FISCAL YEARS 1979 - 1981 (cont.)

(In thousands of dollars)

Institution		Instruction	Research	Public service	Plant operation and maintenance	Auxiliary expenditures	Total[a]
Oakland University	1979	14,082	1,599	1,484	3,409	8,276	39,695
	1980	15,113	2,121	1,967	3,332	9,062	44,510
	1981	16,503	2,182	1,961	3,533	10,015	46,740
Saginaw Valley College	1979	3,717	64	5	1,105	1,122	10,142
	1980	4,140	84	13	994	1,408	11,269
	1981	4,596	72	41	1,134	1,681	12,690
University of Michigan[c]	1979	140,051	73,907	4,759	44,948	34,117	526,929
	1980	153,185	83,784	7,125	49,135	43,640	598,479
	1981	162,956	98,869	6,835	45,489	47,138	660,064[b]
Wayne State University	1979	83,871	14,595	3,413	17,978	10,759	176,070
	1980	80,957	15,826	5,401	20,190	11,477	182,754
	1981	83,879	16,976	6,052	21,477	14,726	191,629
Western Michigan University	1979	32,549	934	2,486	7,651	21,144	87,447
	1980	34,728	1,071	3,609	7,534	21,425	93,149
	1981	36,861	954	3,885	7,695	23,295	98,820
TOTAL	1979	484,992	141,989	48,250	130,787	193,413	1,441,236
	1980	522,320	161,063	61,250	132,151	214,129	1,587,260
	1981	551,130	180,270	66,686	131,606	234,818	1,707,161

SOURCE: Michigan Department of Education, special release.

a. Also includes academic support, student services, institutional support, scholarships and fellowships.
b. Hospital expenditures amounted to $154,727,838 in 1980 and $189,362,025 in 1981.
c. Ann Arbor, Dearborn and Flint.

V. THE LABOR MARKET

The Civilian work force is the sum of the unemployed, those workers involved in labor disputes, and total employment (wage and salary workers, farm workers, self-employed unpaid family workers, and domestics). The unemployment rate is the number of unemployed divided by the total labor force, usually stated as a percentage. The work force includes all persons aged 16 years and older who are classified as employed or unemployed. Those not in the labor force are without a job and are not looking for work for reasons of health, incarceration, college status, retirement, youth, voluntary idleness, involuntary idleness but not looking for a job, and so forth.

Civilian work force, employment, and unemployment figures are estimated from the Current Population Survey (CPS), a sample of U.S. households, not a complete count. The CPS, selected so as to be representative of the total population, is conducted each month by the Bureau of the Census. The results are turned over to the Bureau of Labor Statistics for analysis and release. For the ten largest states, of which Michigan is one, monthly labor force, employment, and unemployment figures come directly from the CPS. For the District of Columbia and the other 40 states, other procedures are used.

Sampling error is the error associated with using a sample of households rather than a complete census. The relative error varies inversely with the size of the statistic being estimated and with the size of the sample. Tables of sampling errors for the various statistics shown in Table V-1 through V-14 may be consulted in BLS publications dealing with geographic profiles of employment and unemployment, published annually.

Job data are estimated from a sample of employers taken monthly by the Michigan Employment Security Commission and similar agencies in other states and the District of Columbia. MESC estimates are made each month for the state, the major labor market areas (these coincide with the Standard Metropolitan Statistical Areas, for the most part), for small labor markets, and for the Upper Peninsula, by industry group. There is no measure of the sampling error in job data (Tables V-15 through V-18). Each year the job figures are revised on the basis of the March benchmark. The MESC carefully compares the employer sample with a tabulation of jobs reported by all employers covered under the regular state unemployment insurance system in order to make adjustments in its procedures.

The chapters dealing with retail trade, wholesale trade, and services provide greater detail on jobs for those sectors; however, the figures given there are developed differently and pertain to the mid-March pay period only. They are helpful guides as to which specific kinds of retailing, wholesaling, and services provide the most and fewest jobs. Also, the industry chapters in this Abstract have tabulations of licenses issued in various professions. In using those figures, the reader should bear in mind that, for one reason or another, not all license holders are practicing those professions.

Table V-22 and V-23 are included because a number of analysts use these data. It must be emphasized that many establishments, such as "mom-and-pop" restaurants, grocery stores, and motels, are not covered under the state's unemployment insurance program. Coverage is least in agriculture, services, and retail trade. It is virtually complete in manufacturing.

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TABLE V-1. CIVILIAN LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN MICHIGAN AND THE UNITED STATES: 1949-1982

(Labor force, employment, and unemployment in thousands)

	Michigan				United States			
	Labor force	Employment	Unemployment		Labor force	Employment	Unemployment	
Year			Number	Rate			Number	Rate
			Original Series[a]					
1949	2,61[illegible]	2,424	190	7.3	61,286	57,651	3,637	5.9
1950	2,[illegible]85	2,577	108	4.0	62,208	58,918	3,288	5.3
1951	2,[illegible]73	2,661	112	4.0	62,017	59,961	2,055	3.3
1952	2,790	2,675	115	4.1	62,138	60,250	1,883	3.0
1953	2,941	2,862	79	2.7	63,015	61,179	1,834	2.9
1954	2,928	2,720	208	7.1	63,643	60,109	3,532	5.5
1955	2,916	2,808	108	3.7	65,023	62,170	2,852	4.4
1956	2,934	2,744	190	6.5	66,552	63,799	2,750	4.1
			Current series					
1956	3,141	2,923	218	6.9	66,552	63,799	2,750	4.1
1957	3,076	2,874	202	6.6	66,929	64,071	2,859	4.3
1958	3,045	2,627	418	13.7	67,639	63,036	4,602	6.8
1959	2,968	2,718	250	8.4	68,369	64,630	3,740	5.5
1960	2,959	2,760	199	6.7	69,628	65,778	3,852	5.5
1961	2,954	2,655	299	10.1	70,459	65,746	4,714	6.7
1962	2,939	2,734	205	7.0	70,614	66,702	3,911	5.5
1963	2,967	2,801	166	5.6	71,833	67,762	4,070	5.7
1964	3,071	2,923	148	4.8	73,091	69,305	3,786	5.2
1965	3,211	3,086	125	3.9	74,455	71,088	3,366	4.5
1966	3,369	3,252	117	3.5	75,770	72,895	2,875	3.8
1967	3,450	3,296	154	4.5	77,347	74,372	2,975	3.8
1968	3,501	3,350	151	4.3	78,737	75,920	2,817	3.6
1969	3,594	3,449	145	4.0	80,734	77,902	2,832	3.5
1970	3,590	3,350	241	6.7	82,771	78,678	4,093	4.9
1971	3,623	3,347	276	7.6	84,382	79,367	5,016	5.9
1972	3,694	3,437	258	7.0	87,034	82,153	4,882	5.6
1973	3,802	3,578	223	5.9	89,429	85,064	4,365	4.9
1974	3,879	3,591	288	7.4	91,949	86,794	5,156	5.6
1975	3,891	3,405	486	12.5	93,775	85,846	7,929	8.5
1976	3,989	3,617	373	9.4	96,158	88,752	7,406	7.7
1977	4,112	3,775	336	8.2	99,009	92,017	6,991	7.1
1978	4,194	3,905	289	6.9	102,251	96,048	6,202	6.1
1979	4,312	3,977	335	7.8	104,962	98,824	6,137	5.8
1980	4,290	3,756	534	12.4	106,940	99,303	7,637	7.1
1981	4,309	3,780	529	12.3	108,670	100,397	8,273	7.6
1982	4,275	3,615	661	15.5	110,204	99,256	10,678	9.7

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, Employment and Earnings (Washington, D.C.: monthly), January 1983, Table A-1.

a. For Michigan there is a break in the comparability of the data in 1956. For the U.S. there is not.

TABLE V-2. ADULT CIVILIAN LABOR FORCE, LABOR FORCE PARTICIPATION RATE, AND CIVILIAN EMPLOYMENT, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN THE DETROIT STANDARD METROPOLITIAN STATISTICAL AREA, IN MICHIGAN, AND THE UNITED STATES, BY RACE AND SEX, ANNUAL AVERAGES OF MONTHLY ESTIMATES FROM THE CURRENT POPULATION SURVEY: 1971-1973 AND 1975-1981

Race, sex, and age	1971	1972	1973	1975	1976	1977	1978	1979	1980	1981
				Detroit SMSA						
				Civilian labor force (000)						
White										
Men 20 years and over	844	852	840	892	907	938	124	927	914	906
Women 20 years and over	411	430	435	503	511	535	548	582	594	597
Negro & other races										
Men 20 years and over	155	149	158	167	149	160	173	192	200	152
Women 20 years and over	105	107	106	113	118	122	150	159	172	137
				Participation rate						
White										
Men 20 years and over	83.2	82.7	83.3	82.2	82.2	83.4	82.2	82.8	81.2	82.5
Women 20 years and over	37.3	38.7	39.4	42.4	43.1	44.7	45.4	48.1	48.8	49.2
Negro & other races										
Men 20 years and over	81.6	71.6	74.9	73.2	69.0	69.9	75.5	78.0	67.7	69.8
Women 20 years and over	45.7	45.5	45.5	44.0	44.0	45.7	53.8	55.0	51.2	48.1
				Civilian employment (000)						
White										
Men 20 years and over	801	817	814	797	852	898	847	887	822	831
Women 20 years and over	386	404	416	455	467	495	516	545	541	536
Negro & other races										
Men 20 years and over	140	133	143	131	135	143	155	162	142	115
Women 20 years and over	91	96	97	97	102	106	127	132	136	108
				Michigan						
				Civilian labor force (000)						
White										
Men 20 years and over	1,884	1,926	1,929	1,954	1,973	2,025	2,021	2,027	2,034	2,058
Women 20 years and over	1,002	1,040	1,063	1,154	1,203	1,233	1,250	1,320	1,363	1,390
Negro & other races										
Men 20 years and over	200	200	216	223	211	225	242	271	257	215
Women 20 years and over	139	140	151	153	158	170	206	222	209	181

TABLE V-2. ADULT CIVILIAN LABOR FORCE, LABOR FORCE PARTICIPATION RATE, AND CIVILIAN EMPLOYMENT, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN THE DETROIT STANDARD METROPOLITIAN STATISTICAL AREA, IN MICHIGAN, AND THE UNITED STATES, BY RACE AND SEX, ANNUAL AVERAGES OF MONTHLY ESTIMATES FROM THE CURRENT POPULATION SURVEY: 1971-1973 AND 1975-1981 (cont.)

Race, sex, and age	1971	1972	1973	1975	1976	1977	1978	1979	1980	1981
				United States (cont.)						
White				Civilian employment (000)						
Men 20 years and over	41,347	42,362	43,183	42,801	43,704	44,784	45,977	46,854	46,671	47,078
Women 20 years and over	23,707	24,555	25,494	26,459	27,634	28,930	30,547	31,876	32,749	33,742
Negro & other races										
Men 20 years and over	4,428	4,518	4,763	4,626	4,782	4,953	5.236	5,409	5,282	5,346
Women 20 years and over	3,443	3,545	3,735	3,851	4,096	4,268	4,632	4,822	4,943	5,031

SOURCE: Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, Table 3, published in Washington, D.C., for the following years: 1971, Report 402 (1972); 1972, Report 421 (1973); 1973, Report 431 (1974); 1975, Report 481 (1977); 1976, Report 504 (1977); State Profile of Employment and Unemployment, 1977, Report 539 (Washington, D.C.: 1978), Table 1; Employment and Earnings, vol. 28, no. 1 (Washington, D.C.: January 1982), Tables 3 and 4, and similar documents for previous years; and special release.

TABLE V-4. FULL AND PART-TIME STATUS OF THE CIVILIAN LABOR FORCE, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN MICHIGAN AND THE UNITED STATES: 1975-1981

	1975	1976	1977	1978	1979	1980	1981
				Michigan			
				Full-time labor force			
Employed:							
Full-time schedules	2,740	2,904	3,061	3,201	3,241	2,984	2,987
Part-time-econ. reason	155	157	157	148	148	195	211
Unemployed (looking for full-time work):							
Number	409	296	262	223	280	464	440
Pct. full-time force	12.4	8.8	7.5	6.2	7.6	12.7	12.1
TOTAL	3,305	3,358	3,479	3,571	3,669	3,643	3,638
				Part-time labor force			
Employed on voluntary part-time	536	561	564	564	589	578	576
Unemployed (looking for part-time work):							
Number	80	78	75	67	55	77	88
Pct. part-time force	13.0	12.2	11.7	10.6	8.6	11.7	13.3
TOTAL	617	638	639	631	644	655	664
				United States			
				Full-time labor force			
Employed:							
Full-time schedules	68,911	71,417	73,987	77,396	79,624	79,029	79,634
Part-time, econ. reason	3,748	3,540	3,530	3,428	3,478	4,205	4,658
Unemployed (looking for full-time work):							
Number	6,437	5,874	5,432	4,706	4,639	6,111	6,631
Pct. full-time force	8.1	7.3	6.5	5.5	5.3	6.8	7.3
TOTAL	79,096	80,831	82,950	85,530	87,741	89,345	90,922
				Part-time labor force			
Employed on voluntary part-time	12,124	12,528	13,028	13,549	13,843	13,997	14,022
Unemployed (looking for part-time work):							
Number	1,393	1,414	1,423	1,341	1,325	1,350	1,449
Pct. part-time force	10.3	10.1	9.8	9.0	8.7	8.8	9.4
TOTAL	13,517	13,942	14,451	14,890	15,167	15,347	15,470

SOURCE: Bureau of Labor Statistics, Employment and Earnings (Washington, D.C.: monthly; and Michigan Employment Security Commission, special release. special release.

TABLE V-5. EMPLOYMENT STATUS, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, IN MICHIGAN AND THE UNITED STATES, BY OCCUPATION GROUP: 1979-1981

Occupation group	1979			1980			1981		
		Unemployed			Unemployed			Unemployed	
	Employed (000)	Number (000)	Rate (percent)	Employed (000)	Number (000)	Rate (percent)	Employed (000)	Number (000)	Rate (percent)
Detroit SMSA									
Professional and technical	302	7	2.2	309	11	3.6	311	11	3.4
Managers and administrators, except farm	175	5	2.7	170	7	3.9	187	8	4.3
Sales workers	110	5	4.7	118	9	7.0	135	9	6.3
Clerical workers	369	26	6.6	367	33	8.3	326	37	10.2
TOTAL white-collar	954	43	4.4	964	60	5.9	960	66	6.4
Craft worker	262	18	6.5	233	30	11.3	217	27	11.1
Operatives, exc. transport	284	46	14.0	191	84	30.4	179	62	25.7
Transport equip. operatives	77	6	7.0	67	12	5.7	58	11	15.5
Nonfarm laborers	74	12	13.8	73	25	25.7	78	24	23.3
TOTAL blue-collar	697	82	10.6	564	151	21.1	531	123	18.8
Service workers	249	29	10.5	252	36	12.4	257	34	11.6
Farm workers	-	-	-	21	0	22.5	6	0	-
TOTAL	1,909	172	8.3	1,782	247	12.2	1,754	223	11.3

TABLE IV-15. EDUCATIONAL AND GENERAL EXPENDITURES OF MICHIGAN PUBLIC FOUR-YEAR INSTITUTIONS OF HIGHER EDUCATION: FISCAL YEARS 1979 - 1981

(In thousands of dollars)

Institution		Instruction	Research	Public service	Plant operation and maintenance	Auxiliary expenditures	Total[a]
Central Michigan University	1979	25,807	180	1,660	3,908	14,783	64,314
	1980	29,087	272	1,776	4,789	13,842	71,755
	1981	30,310	279	1,759	4,547	16,492	74,702
Eastern Michigan University	1979	22,526	351	1,929	5,291	10,114	60,064
	1980	24,636	395	3,448	5,989	10,789	65,735
	1981	26,326	410	3,950	6,260	11,887	70,848
Ferris State College	1979	16,291	174	117	4,369	10,449	44,043
	1980	18,793	77	142	5,290	11,853	50,669
	1981	18,897	13	179	4,463	15,528	57,185
Grand Valley State College	1979	9,243	111	1,110	2,077	3,477	23,704
	1980	10,021	103	1,677	2,720	3,801	26,407
	1981	9,823	98	2,025	2,657	4,003	27,041
Lake Superior State College	1979	2,990	2	287	1,140	2,727	9,955
	1980	3,420	0	211	1,327	3,265	11,274
	1981	3,725	0	179	1,445	3,430	11,830
Michigan State University	1979	109,062	44,399	28,985	31,492	58,616	320,176
	1980	120,935	50,802	33,541	22,863	63,720	343,335
	1981	128,008	54,108	36,643	23,645	66,577	362,792
Michigan Technical University	1979	12,625	5,533	628	3,834	8,410	41,033
	1980	13,684	6,350	726	4,375	9,933	46,662
	1981	15,392	6,135	788	4,957	10,258	50,019
Northern Michigan University	1979	12,178	140	1,387	3,585	9,419	37,664
	1980	13,621	178	1,614	3,613	9,914	41,262
	1981	13,854	174	2,389	4,304	9,788	42,801

TABLE V-2. ADULT CIVILIAN LABOR FORCE, LABOR FORCE PARTICIPATION RATE, AND CIVILIAN EMPLOYMENT, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN THE DETROIT STANDARD METROPOLITIAN STATISTICAL AREA, IN MICHIGAN, AND THE UNITED STATES, BY RACE AND SEX, ANNUAL AVERAGES OF MONTHLY ESTIMATES FROM THE CURRENT POPULATION SURVEY: 1971-1973 AND 1975-1981 (cont.)

Race, sex, and age	1971	1972	1973	1975	1976	1977	1978	1979	1980	1981
Michigan (cont.)										
Participation rate										
White										
Men 20 years and over	82.8	82.3	82.2	81.8	81.1	81.8	80.6	80.7	79.6	80.1
Women 20 years and over	40.3	41.1	42.1	44.4	46.0	46.7	46.3	48.4	49.6	50.0
Negro & other races										
Men 20 years and over	82.3	75.5	76.6	73.1	71.8	70.8	76.1	78.1	71.1	71.1
Women 20 years and over	47.0	46.5	47.3	44.7	45.0	48.2	55.4	55.8	50.6	48.4
Civilian employment (000)										
White										
Men 20 years and over	1,786	1,848	1,869	1,755	1,843	1,927	1,945	1,923	1,812	1,869
Women 20 years and over	947	979	1,016	1,040	1,091	1,139	1,174	1,235	1,237	1,258
Negro & other races										
Men 20 years and over	183	180	196	180	191	102	220	232	193	162
Women 20 years and over	120	124	132	127	135	144	175	187	172	139
United States										
Civilian labor force (000)										
White										
Men 20 years and over	43,088	43,961	44,490	45,617	46,179	46,960	47,733	48,583	49,245	49,853
Women 20 years and over	25,030	25,822	26,647	28,609	29,660	30,852	32,233	33,545	34,686	35,851
Negro & other races										
Men 20 years and over	4,773	4,847	5,049	5,238	5,348	5,504	5,731	5,904	5,967	6,091
Women 20 years and over	3,768	3,888	4,067	4,351	4,617	4,833	5,182	5,366	5,557	5,748
Participation rate										
White										
Men 20 years and over	82.3	82.6	81.7	80.7	80.3	80.2	80.2	80.2	79.9	79.5
Women 20 years and over	42.3	42.7	43.4	45.3	46.2	47.4	48.7	49.9	50.8	51.6
Negro & other races										
Men 20 years and over	80.0	78.5	78.5	76.4	75.5	75.6	76.4	76.4	74.9	74.2
Women 20 years and over	51.8	51.5	51.3	51.2	52.6	53.3	55.4	55.6	55.8	55.9

TABLE V-3. LEVEL AND RATE OF ADULT UNEMPLOYMENT, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN THE DETROIT STANDARD METROPOLITIAN STATISTICAL AREA, IN MICHIGAN, AND THE UNITED STATES, BY RACE AND SEX, ANNUAL AVERAGE OF MONTHLY ESTIMATES FROM THE CURRENT POPULATION SURVEY: 1971-1973 AND 1975-1981

Race, sex, and age	1971	1972	1973	1975	1976	1977	1978	1979	1980	1981
				Detroit SMSA						
				Total unemployed (000)						
White										
Men 20 years and over	42	34	25	95	55	40	26	40	92	75
Women 20 years and over	25	26	19	48	44	40	32	36	53	62
Negro & other races										
Men 20 years and over	15	16	15	36	15	16	17	31	58	37
Women 20 years and over	14	11	11	15	16	16	24	26	36	29
				Unemployment rate						
White										
Men 20 years and over	5.0	4.0	3.0	10.7	6.1	4.3	2.8	4.3	10.1	8.3
Women 20 years and over	6.1	6.0	4.4	9.5	8.6	7.5	5.8	6.2	9.0	10.3
Negro & other races										
Men 20 years and over	9.7	10.7	9.5	21.6	10.1	10.0	9.8	16.1	29.0	24.2
Women 20 years and over	13.3	10.3	10.4	13.3	13.6	13.1	16.0	16.4	20.9	21.3
				Michigan						
				Total unemployed (000)						
White										
Men 20 years and over	98	79	58	200	130	98	77	104	222	189
Women 20 years and over	55	60	49	113	113	93	77	85	126	132
Negro & other races										
Men 20 years and over	18	19	21	44	20	21	22	38	64	53
Women 20 years and over	21	16	19	25	25	27	29	34	37	41
				Unemployment rate						
White										
Men 20 years and over	5.2	4.1	3.0	10.2	6.6	4.8	3.8	5.1	10.9	9.2
Women 20 years and over	5.5	5.8	4.6	9.8	9.4	7.5	6.2	6.4	9.3	9.5
Negro & other races										
Men 20 years and over	9.0	9.5	9.7	19.7	9.5	9.3	9.1	14.0	24.9	24.6
Women 20 years and over	15.1	11.4	12.6	16.3	15.8	15.9	14.1	15.3	17.9	22.7

TABLE V-3. LEVEL AND RATE OF ADULT UNEMPLOYMENT, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN THE DETROIT STANDARD METROPOLITIAN STATISTICAL AREA, IN MICHIGAN, AND THE UNITED STATES, BY RACE AND SEX, ANNUAL AVERAGE OF MONTHLY ESTIMATES FROM THE CURRENT POPULATION SURVEY: 1971-1973 AND 1975-1981 (cont.)

Race, sex, and age	1971	1972	1973	1975	1976	1977	1978	1979	1980	1981
				United States						
				Total unemployed (000)						
White										
Men 20 years and over	1,741	1,598	1,307	2,816	2,474	2,176	1,756	1,728	2,581	2,776
Women 20 years and over	1,324	1,268	1,153	2,149	2,025	1,922	1,686	1,669	1,931	2,109
Negro and other races										
Men 20 years and over	345	330	287	611	566	551	496	495	681	745
Women 20 years and over	327	343	332	500	522	564	550	544	616	717
				Unemployment rate						
White										
Men 20 years and over	4.0	3.6	2.9	6.2	5.4	4.6	3.7	3.6	5.2	5.6
Women 20 years and over	5.3	4.9	4.3	7.5	6.8	6.2	5.2	5.0	5.6	5.9
Negro and other races										
Men 20 years and over	7.2	6.8	5.7	11.7	10.6	10.0	8.7	8.4	11.4	12.2
Women 20 years and over	8.7	8.8	8.2	11.5	11.3	11.7	10.6	10.1	11.1	12.5

SOURCE: Bureau of Labor Statistics, Georgraphic Profile of Employment and Unemployment, Table 3, published in Washington, D.C., for the following years: 1971, Report 402 (1972); 1972, Report 421 (1973) 1973, Report 431 (1974); 1975, Report 481 (1977); 1976, Report 504 (1977); State Profile of Employment and Unemployment, 1977, Report 539 (Washington, D.C.: 1978), Table 1; Employment and Earnings, vol. 28, no. 1 (Washington, D.C.: January 1981 and 1982) Table 3.

TABLE V-5. EMPLOYMENT STATUS, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, IN MICHIGAN AND THE UNITED STATES, BY OCCUPATION GROUP: 1979-1981 (cont.)

Occupation group	1979			1980			1981		
		Unemployed			Unemployed			Unemployed	
	Employed (000)	Number (000)	Rate (percent)	Employed (000)	Number (000)	Rate (percent)	Employed (000)	Number (000)	Rate (percent)
				Michigan					
Professional and technical	567	12	2.0	587	18	3.0	591	21	3.4
Managers and administrators, except farm	353	10	2.7	354	13	3.5	394	21	4.9
Sales workers	225	12	5.1	225	17	7.0	252	16	6.1
Clerical workers	703	40	5.4	696	58	7.7	651	61	8.6
TOTAL white-collar	1,848	74	3.9	1,861	106	5.4	1,888	119	5.9
Craft workers	548	37	6.3	497	70	12.3	472	56	10.7
Operatives, exc. transport	626	82	11.6	483	165	25.5	473	126	21.0
Transport equip. operatives	168	13	7.3	144	27	15.8	129	22	14.8
Nonfarm laborers	178	30	14.5	173	50	22.4	182	53	22.6
TOTAL blue-collar	1,520	163	9.7	1,297	312	19.4	1,257	258	17.0
Service workers	556	60	9.7	550	71	11.4	570	76	11.8
Farm workers	54	4	6,4	48	5	9.4	58	4	6.4
TOTAL	3,978	335	7.8	3,757	494	15.2	3,773	457	10.8

TABLE V-5. EMPLOYMENT STATUS, DATA BASED ON A SAMPLE OF HOUSEHOLDS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, IN MICHIGAN AND THE UNITED STATES, BY OCCUPATION GROUP: 1979-1981 (cont.)

Occupation group	1979 Employed (000)	1979 Unemployed Number (000)	1979 Unemployed Rate (percent)	1980 Employed (000)	1980 Unemployed Number (000)	1980 Unemployed Rate (percent)	1981 Employed (000)	1981 Unemployed Number (000)	1981 Unemployed Rate (percent)
United States									
Professional and tech.	15,050	373	2.4	15,594	396	2.5	16,420	469	2.8
Managers and administrators, exc. farm	10,516	225	2.1	10,895	273	2.7	11,540	317	2.7
Sales workers	6,163	252	3.9	6,177	281	4.4	6,425	308	4.6
Clerical workers	17,613	853	4.6	18,069	1,005	5.3	18,564	1,129	5.7
TOTAL white-collar	49,342	1,703	3.3	50,735	1,955	3.3	52,941	2,223	4.0
Craft workers	12,880	604	4.5	12,548	887	6.6	12,662	1,022	7.5
Operatives, exc. transport	10,909	1,000	8.4	10,358	1,442	12.2	10,540	1,465	12.2
Transport equip. operatives	3,612	206	5.4	3,479	328	8.6	3,476	330	8.7
Nonfarm labors	4,665	566	10.8	4,443	757	14.6	4,583	792	14.7
TOTAL blue-collar	32,066	2,377	6.9	30,828	3,414	10.0	31,261	3,608	10.3
Service workers	12,834	980	7.1	12,953	1,111	7.9	13,438	1,307	8.9
Farm workers	2,703	106	3.8	2,715	125	4.4	2,749	153	5.3
TOTAL	96,945	5,963	5.8	97,231	6,605	6.4	100,397	8,273	7.6

SOURCE: Bureau of Labor Statistics, Employment and Earnings, (Washington, D.C.: monthly); and Michigan Employment Security Commission, special release.

TABLE V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Legislators	264	85	33	24	0	0	300	109
Chief executives and general administrators, public administration	1,080	286	162	103	12	6	1,269	402
Administrators & officials, public administration	5,630	3,227	603	584	33	30	6,338	3,837
Administrators, protective service	714	85	34	0	12	0	750	85
Financial managers	9,572	5,010	370	341	28	44	10,030	5,386
Personnel & labor relations mgrs.	5,610	2,470	389	303	63	26	6,054	2,805
Purchasing managers	2,010	407	19	28	13	0	2,052	435
Managers, marketing, advertising, & public relations	21,013	4,154	507	223	106	13	21,674	4,398
Administrators, education & related fields	9,526	4,442	984	869	72	80	10,621	5,364
Managers, medicine and health	1,842	1,605	193	272	7	14	2,057	1,927
Managers, properties & real estate	3,148	2,008	197	326	9	24	3,369	2,358
Postmasters & mail superintendents	573	312	7	3	5	4	582	315
Funeral directors	1,241	99	97	14	0	0	1,338	113
Managers & administrators, N.E.C. salaried	105,112	36,306	4,144	2,735	835	337	110,485	39,473
Managers & administrators, N.E.C., self-employed	13,007	4,571	543	176	109	66	13,746	4,862
Accountants & auditors	23,100	11,478	1,109	1,629	200	103	24,559	13,347
Underwriters	203	163	14	6	0	0	217	169
Other financial officers	6,855	5,058	311	436	49	19	7,220	5,521
Management analysts	2,155	712	85	96	0	3	2,254	817
Personnel, training, & labor relations specialists	9,557	5,702	1,173	1,459	95	119	10,837	7,293
Purchasing agents & buyers, farm prdts.	203	16	8	0	0	0	211	16
Buyers, wholesale & retail trade except farm products	2,895	2,260	16	88	31	6	2,932	2,381

TABLE V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Purchasing agents & buyers, N.E.C.	5,672	1,835	227	196	38	26	5,928	2,040
Business & promotion agents	307	204	56	11	0	0	363	215
Construction inspectors	1,585	46	165	0	0	0	1,764	46
Inspectors & compliance officers except construction	3,082	591	508	181	44	0	3,625	772
Management related occupations, N.E.C.	382	322	28	80	6	0	410	406
Architects	2,800	199	69	4	66	14	2,952	218
Engineers-aerospace	462	4	13	0	5	0	488	4
Engineers-metallurgical & materials	1,661	57	47	0	11	0	1,731	57
Engineers-mining	92	10	0	0	0	0	92	10
Engineers-petroleum	119	4	5	0	0	0	124	4
Engineers-chemical	1,945	93	21	12	35	0	2,063	128
Engineers-nuclear	141	9	6	0	0	0	159	9
Engineers-civil	5,012	140	216	12	60	0	5,557	171
Engineers-agricultural	169	14	8	0	0	0	189	14
Engineers-electrical & electronic	6,985	372	215	79	55	0	7,471	451
Engineers-industrial	8,906	632	292	73	63	17	9,361	705
Engineer-mechanical	24,217	593	833	94	155	12	25,947	722
Engineers-marine & naval architects	280	19	0	0	0	0	306	19
Engineers, N.E.C.	8,231	309	228	67	63	0	8,890	376
Surveyors & mapping scientists	828	56	6	6	13	0	839	62
Computer systems analysts & scientists	5,523	1,436	211	168	46	19	5,973	1,611
Operations & systems researchers and analysts	2,061	745	163	73	20	10	2,283	841
Actuaries	154	51	0	0	0	0	154	51
Statisticians	592	371	42	21	6	6	667	416
Mathematical scientists, N.E.C.	16	0	0	0	0	0	16	0
Physicists and astronomers	291	10	0	0	0	0	309	10
Chemists, except biochemists	3,067	567	241	52	24	21	3,530	690

TABLE V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Atmospheric & space scientists	127	74	6	0	0	0	141	74
Geologists and geodesists	333	47	0	0	5	0	352	47
Physical scientists, N.E.C.	156	33	0	11	0	0	156	44
Agricultural & food scientists	434	144	6	6	14	3	440	153
Biological & life scientists	919	442	7	37	0	0	962	494
Forestry & conservation scientists	764	106	14	0	5	0	794	109
Medical scientists	346	265	24	37	15	0	431	325
Physicians	11,795	1,528	626	232	421	66	14,489	2,399
Dentists	4,965	201	156	22	18	2	5,184	230
Veterinarians	1,108	143	3	4	0	0	1,125	147
Optometrists	841	76	0	0	6	0	847	76
Podiatrists	328	12	3	0	0	0	331	12
Health diagnosing practitioners, N.E.C.	723	49	12	0	0	0	735	49
Registered nurses	1,595	40,831	228	3,267	33	502	1,894	45,862
Pharmacists	4,376	1,413	102	124	7	12	4,539	1,566
Dietitians	126	1,770	21	355	17	19	147	2,193
Therapists-inhalation	983	1,192	95	224	14	6	1,092	1,430
Therapists-occupational	49	877	12	43	0	0	66	925
Therapists-physical	359	1,061	20	45	6	7	391	1,161
Therapists-speech	226	1,152	8	76	1	7	234	1,228
Therapists, N.E.C.	538	967	97	85	15	6	641	1,084
Physicians assistants	639	431	65	35	34	0	755	497
Earth, environmental, & marine science teachers	59	18	0	0	0	0	59	18
Biological science teachers	253	65	0	0	0	0	253	65
Chemistry teachers	256	72	0	0	0	6	269	77
Physics teachers	199	38	0	0	0	0	210	38
Natural science teachers, N.E.C.	27	0	0	0	0	0	32	0
Psychology teachers	83	92	6	0	6	27	107	106

TABLE V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Economics teachers	171	29	0	0	7	0	171	32
History teachers	160	75	8	7	6	0	168	82
Political science teachers	66	8	0	0	6	0	72	8
Sociology teachers	80	45	0	0	0	0	95	45
Social science teachers, N.E.C.	41	16	7	0	0	8	48	16
Engineering teachers	398	47	6	0	19	0	449	47
Mathematical science teachers	388	196	12	9	20	0	430	217
Computer science teachers	66	35	6	0	0	4	72	35
Medical science teachers	295	90	13	0	20	0	308	96
Health specialities teachers	115	803	0	44	0	17	115	877
Business, commerce, & marketing teachers	205	144	10	27	0	0	226	176
Agricultural & forestry teachers	73	23	0	0	0	0	73	23
Art, drama, & music teachers	448	385	12	20	0	0	460	418
Physical education teachers	107	137	6	0	0	0	113	137
Education teachers	43	17	0	3	0	0	43	20
English teachers	336	386	0	33	6	0	336	419
Foreign language teachers	112	180	0	0	10	32	122	185
Law teachers	160	37	0	0	7	0	160	37
Social work teachers	12	13	0	31	0	0	12	50
Theology teachers	115	16	0	0	0	0	115	16
Trade & industrial teachers	58	34	0	6	6	0	58	40
Home economics teachers	0	34	0	0	0	0	0	34
Teachers, postsecondary, N.E.C.	61	22	8	0	0	0	69	25
Postsecondary teachers, subject not specified	10,072	4,620	459	380	124	79	11,056	5,155
Teachers, prekindergarten & kindergarten	156	4,637	72	511	0	26	233	5,197
Teachers-elementary school	25,092	57,865	1,722	7,707	142	483	27,066	66,154
Teachers-secondary school	14,712	16,150	837	1,655	86	174	15,640	17,962

TABLE V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Teachers-special education	278	682	7	56	0	2	285	738
Teachers-N.E.C.	3,188	6,523	311	400	34	45	3,557	7,020
Counselors, educational & vocational librarians, archivists, & curators	3,124	3,382	539	893	28	88	3,693	4,397
Librarians	1,093	5,108	53	478	0	41	1,175	5,665
Archivists and curators	122	200	6	30	9	0	133	230
Economists	1,924	678	116	136	15	0	2,108	818
Phychologists	1,992	1,350	76	60	49	13	2,097	1,451
Sociologists	29	18	0	0	7	0	36	18
Social Scientists, N.E.C.	136	64	7	0	16	7	153	70
Urban planners	257	119	27	38	5	8	295	167
Social workers	6,055	10,255	1,330	3,678	113	246	7,433	14,188
Recreation workers	291	677	154	96	16	3	460	783
Clergy	8,834	578	529	27	69	0	9,432	605
Religious workers, N.E.C.	531	1,239	37	45	5	0	570	1,289
Lawyers	13,713	1,877	509	195	88	13	14,275	2,077
Judges	795	122	85	55	0	0	884	177
Authors	387	344	0	22	0	0	391	366
Technical writers	1,014	417	60	53	2	0	1,088	470
Designers	9,137	5,114	231	146	45	50	9,454	5,332
Musicians and composers	2,681	1,398	335	163	30	7	3,067	1,573
Actors and directors	742	337	79	49	5	0	831	386
Painters, sculptors, craft-artists & artist printmakers	2,418	2,034	125	21	30	20	2,607	2,092
Photographers	2,379	773	156	28	41	2	2,576	808
Dancers	39	104	0	10	0	0	39	114
Artists, performers, & related workers, N.E.C.	685	656	130	57	0	21	830	713
Editors and reporters	2,832	2,361	63	174	24	49	2,927	2,609
Public relations specialists	1,901	1,486	163	204	6	16	2,068	1,703
Announcers	1,147	281	163	42	15	0	1,330	331

TABLE V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Athletes	1,240	538	160	34	23	21	1,417	577
Clinical laboratory technologists & technicians	2,010	6,008	296	1,021	23	96	2,425	7,413
Dental hygienists	19	2,373	0	55	0	16	19	2,428
Health record technologists & technicians	13	602	13	80	0	23	26	688
Radiologic technicians	1,029	2,580	154	372	34	15	1,227	2,982
Licensed practical nurses	564	16,506	123	3,023	0	173	695	19,765
Health technologists & technicians, N.E.C.	1,816	3,147	159	677	47	33	2,083	3,858
Electrical & electronic techs.	5,232	451	229	145	20	18	5,517	599
Industrial engineering technicians	353	61	6	0	0	6	365	67
Mechanical engineering technicians	1,705	65	77	7	31	0	1,815	72
Engineering technicians, N.E.C.	7,845	1,497	516	168	52	16	8,444	1,702
Drafting occupations	16,043	1,729	711	140	224	25	17,040	1,921
Surveying & mapping technicians	989	94	17	42	0	3	1,018	155
Biological technicians	854	624	56	92	0	6	939	738
Chemical technicians	2,057	521	210	58	17	16	2,348	631
Science technicians, N.E.C.	1,386	649	90	70	13	25	1,538	761
Airplane pilots & navigators	1,234	9	0	0	13	0	1,234	9
Air traffic controllers	470	120	49	29	15	0	552	153
Broadcast equipment operators	1,206	856	48	48	13	11	1,254	910
Computer programmers	6,539	2,776	350	289	70	36	7,013	3,151
Tool programmers, numerical control	298	53	6	11	0	0	304	70
Legal assistants	462	1,140	13	79	6	37	489	1,230
Technicians, N.E.C.	6,020	2,801	270	280	128	51	6,653	3,191
Supervisors & proprietors, sales occupations, salaried	28,702	11,314	1,159	578	288	116	30,165	11,995
Supervisors & proprietors, sales occupations, self-employed	9,226	3,333	380	150	89	33	9,710	3,541
Insurance sales occupations	13,629	3,973	831	539	57	61	14,613	4,542

TABLE V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Real estate sales occupations	11,753	8,982	377	282	56	40	12,183	9,324
Securities & financial services sales occupations	2,332	486	82	16	15	0	2,427	502
Advertising & related sales occup'tns	2,611	1,584	123	58	19	13	2,745	1,642
Sales occupations, other business services	7,775	4,392	321	227	70	61	8,147	4,668
Sales engineers	3,156	36	18	0	7	0	3,203	36
Sales representatives, mining, Manufacturing, & wholesale	36,787	5,690	994	350	137	47	37,971	6,078
Sales workers, motor vehicles & boats	9,323	877	277	25	104	14	9,653	909
Sales workers, apparel	3,029	14,042	362	1,361	11	235	3,455	15,604
Sales workers, shoes	1,780	2,576	324	125	26	26	2,116	2,712
Sales workers, furniture & home furnishings	3,261	2,542	147	70	32	32	3,424	2,626
Sales workers, radio, TV, Hi-Fi, and appliances	3,493	1,644	323	111	28	5	3,827	1,762
Sales workers, hardware & bldg. supplies	5,768	2,220	122	24	31	18	5,929	2,272
Sales workers, parts	6,814	519	123	34	48	0	6,976	559
Sales workers, other commodities	13,887	44,736	953	3,136	202	507	15,021	48,317
Sales counter clerks	769	3,200	55	387	6	28	824	3,622
Cashier	9,330	60,648	1,163	7,200	217	994	10,648	68,685
Street & door-to-door sales workers	1,490	6,822	57	325	0	61	1,563	7,197
News vendors	3,024	1,482	187	43	26	22	3,237	1,551
Demonstrators, promoters & models, sales	120	386	5	12	0	6	128	402
Auctioneers	175	11	0	0	0	0	175	11
Sales support occupations, N.E.C.	154	163	16	0	4	0	174	171
Supervisors, general office	9,049	11,981	970	1,791	65	100	10,112	13,865
Supervisors, computer equipment operators	1,307	326	57	41	5	0	1,364	367

TABLE V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Supervisors, financial records processing	3,795	2,671	132	265	21	24	3,974	2,967
Chief communications operators	1,343	606	125	169	0	7	1,475	775
Supervisors, distribution, scheduling, & adjusting clerks	4,880	981	439	241	57	16	5,344	1,237
Computer operators	5,116	7,477	577	1,345	50	87	5,764	8,941
Peripheral equipment operators	168	260	13	89	0	9	181	364
Secretaries	1,316	140,338	140	10,315	36	1,642	1,469	152,092
Stenographers	213	2,095	33	453	31	22	246	2,567
Typists	483	24,113	165	5,410	29	462	669	29,894
Interviewers	822	3,369	272	640	0	46	1,103	4,049
Hotel clerks	546	1,030	40	111	0	19	586	1,146
Transportation ticket & reservation agents	977	1,216	121	282	2	29	1,104	1,518
Receptionists	830	21,135	230	2,390	10	247	1,104	23,783
Information clerks, N.E.C.	605	2,810	98	510	14	91	713	3,372
Classified-ad clerks	88	324	6	53	0	7	94	377
Correspondence clerks	86	318	10	57	0	0	96	381
Order clerks	4,325	7,944	601	1,346	146	146	5,032	9,419
Personnel clerks, except payroll & timekeeping	312	1,668	53	361	13	11	365	2,037
Library clerks	788	4,631	142	627	3	52	960	5,349
File clerks	2,209	7,347	409	1,949	50	211	2,650	9,489
Records clerks	499	3,042	62	472	12	32	570	3,557
Bookkeepers, accounting & auditing clerks	5,090	53,224	451	2,804	69	420	5,637	56,470
Payroll & timekeeping clerks	1,208	4,864	81	755	8	99	1,314	5,674
Billing clerks	538	5,535	27	544	3	83	575	6,123
Cost & rate clerks	1,016	1,892	26	175	3	30	1,042	2,091

TABLE V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Billing, posting, & calculating machine operators	90	1,549	41	408	6	41	141	2,015
Duplicating machine operators	198	409	52	118	1	4	251	552
Mail preparing & paper handling machine operators	70	149	15	8	6	6	85	165
Office machine operators, N.E.C.	275	774	75	202	0	30	363	985
Telephone operators	589	8,414	188	1,827	6	96	792	10,317
Telegraphers	85	46	21	30	0	0	106	76
Communications equip. operators, N.E.C.	26	255	5	0	0	0	31	255
Postal clerks, exc. mail carriers	2,755	3,186	1,060	2,076	61	43	3,847	5,319
Mail carriers, Postal Service	6,766	2,294	909	501	67	8	7,738	2,800
Mail clerks, exc. Postal Service	2,353	2,500	579	738	50	65	2,961	3,286
Messengers	1,564	566	238	130	40	8	1,845	705
Dispatchers	1,989	1,104	121	139	19	9	2,111	1,254
Production coordinators	6,825	3,528	816	544	106	55	7,734	4,142
Traffic, shipping, & receiving clerks	13,343	4,191	1,256	400	178	30	14,787	4,647
Stock & inventory clerks	15,582	6,279	1,861	1,226	342	100	17,761	7,574
Meter readers	843	197	178	62	12	0	1,039	267
Weighers, measurers, & checkers	1,931	876	171	126	38	44	2,142	1,036
Samplers	19	29	0	0	0	0	19	29
Expediters	1,519	1,647	81	126	25	12	1,616	1,773
Material recording, scheduling, & distributing clerks, N.E.C.	228	1,119	37	252	7	6	280	1,392
Insurance adjusters, examiners, & investigators	2,190	3,034	154	723	18	34	2,366	3,793
Investigators & adjusters, except insurance	2,897	4,273	456	752	39	53	3,381	5,062
Eligibility clerks, social welfare	40	126	7	70	0	0	53	214
Bill & account collectors	1,144	2,099	155	420	16	41	1,315	2,553
General office clerks	7,923	41,500	1,357	7,144	119	781	9,458	49,373
Bank tellers	984	18,792	141	1,946	12	245	1,141	20,945

TABLE V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Proofreaders	113	669	0	34	0	5	113	711
Data-entry keyers	584	10,546	106	2,405	0	156	692	13,263
Statistical clerks	1,118	3,214	158	472	18	60	1,306	3,761
Teachers' aides	690	7,624	227	2,390	23	183	953	10,185
Administrative support occupations N.E.C.	5,142	9,067	413	1,718	86	122	5,656	10,944
Launderers & ironers	21	49	0	21	0	0	21	70
Cooks, private household	7	133	4	38	0	7	11	171
Housekeepers & butlers	17	1,002	33	459	0	32	50	1,492
Child care workers, private households	202	7,830	30	678	0	137	234	8,583
Private household cleaners & servants	349	4,841	159	2,923	0	85	519	7,941
Supervisors, firefighting & fire prevention occupations	426	0	14	0	5	0	440	0
Supervisors, police and detectives	1,971	65	222	13	9	0	2,207	78
Supervisors, guards	739	51	100	11	8	0	866	62
Fire inspection & fire prevention occupations	623	38	84	0	6	0	715	38
Firefighting occupations	5,380	26	508	20	70	0	5,957	46
Police & detectives, public service	13,192	732	1,952	639	230	18	15,337	1,397
Sheriffs, bailiffs, & other law enforcement officers	1,639	174	158	74	11	2	1,800	250
Correctional institution officers	2,024	292	249	92	24	0	2,331	405
Crossing guards	452	1,104	74	127	0	7	526	1,242
Guards & police, exc. public service	16,094	2,873	4,150	830	321	57	20,569	3,763
Protective service occupations, N.E.C.	772	541	106	0	6	5	910	547
Supervisors, food preparation & service occupations	3,230	6,664	317	727	98	132	3,668	7,548
Bartenders	5,905	7,406	301	144	99	84	6,254	7,648
Waiters & waitresses	3,500	66,902	470	2,996	83	936	4,108	71,169
Cooks, except short order	21,084	26,489	2,751	3,516	424	368	24,804	30,551
Short-order cooks	1,756	1,108	315	176	28	10	2,098	1,309

TABLE V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Food counter, fountain & related occupations	988	6,265	243	487	17	95	1,248	6,825
Kitchen workers, food preparation	392	2,962	109	508	0	57	510	3,497
Waiters/Waitresses assistants	7,690	5,376	748	672	169	90	8,582	6,158
Misc. food preparation occupations	12,313	15,227	1,691	2,516	420	378	14,450	18,295
Dental assistants	87	6,599	36	289	0	97	123	6,932
Health aides, except nursing	1,250	12,877	452	2,946	47	214	1,776	16,115
Nursing aides, orderlies & attendants	5,121	37,902	1,969	12,768	152	846	7,276	51,849
Supvs., cleaning & bldg. serv. workers	2,793	1,027	443	375	50	12	3,277	1,409
Maids and housemen	4,211	13,239	1,585	4,744	164	461	5,902	18,391
Janitors and cleaners	62,935	19,264	13,482	5,741	1,615	625	77,947	25,607
Elevator operators	180	124	85	99	0	6	265	223
Pest control occupations	421	31	123	5	0	0	544	36
Supvs., personal serv. occupations	592	415	0	29	7	0	606	457
Barbers	3,094	491	259	56	46	2	3,376	549
Hairdressers & cosmetologists	1,672	17,047	209	1,242	61	182	1,906	18,512
Attendants, amusement & recreation facilities	1,708	846	308	76	2	9	2,039	939
Guides	276	321	46	121	0	11	332	442
Ushers	677	269	49	32	11	0	731	308
Public transportation attendants	169	557	57	164	0	6	226	727
Baggage porters & bellhops	232	34	126	0	9	0	372	34
Welfare service aides	127	709	62	176	16	19	214	929
Child care workers, exc. private household	1,345	20,682	527	4,795	32	580	1,924	25,948
Personal serv. occupations, N.E.C.	1,181	3,644	463	979	41	92	1,701	4,766
Farmers, except horticultural	23,813	2,668	96	17	31	8	23,951	2,696
Horticultural specialty farmers	285	56	12	0	0	0	297	56
Managers, farms, exc. horticultural	2,222	298	20	0	36	0	2,250	298
Managers, horticultural specialty farms	483	32	35	0	0	0	518	32
Supervisors, farm workers	390	128	8	12	12	0	410	140

TABLE V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Farm workers	13,148	4,545	217	65	554	282	13,829	4,789
Marine life cultivation workers	9	10	0	0	0	0	9	10
Nursery workers	468	398	30	6	95	43	559	430
Supervisors, related agricultural occupations	694	13	5	7	2	0	701	20
Groundskeepers & gardeners, exc. farm	9,793	1,081	1,202	154	234	22	11,279	1,288
Animal caretakers, exc. farm	769	1,663	73	37	19	8	856	1,707
Graders & sorters, agricultural prdts.	96	327	15	0	2	17	117	335
Inspectors, agricultural products	14	3	0	0	0	0	14	3
Supvs., forestry & logging workers	131	0	5	0	0	0	136	0
Forestry workers, except logging	656	108	27	5	18	0	695	120
Timber cutting & logging occupations	2,985	99	35	0	14	0	3,115	99
Captains & other officers, fishing vessels	49	0	0	0	0	0	50	0
Fishers	322	7	0	0	0	0	417	7
Hunters and trappers	28	18	0	0	0	0	28	18
Supvs., mechanics & repairers	4,814	165	181	27	65	9	5,032	192
Automobile mechanics, exc. apprentices	36,715	520	3,702	165	506	0	40,983	685
Automobile mechanic apprentices	122	6	36	0	0	0	162	6
Bus, truck, & stationary engine mechanics	7,135	49	480	0	106	0	7,697	57
Aircraft engine mechanics	1,401	17	42	0	6	0	1,452	17
Small engine repairers	1,577	18	45	7	0	0	1,628	25
Automobile body & related repairers	9,086	139	597	28	93	0	9,783	167
Aircraft mechanics, exc. engine	139	10	0	0	3	0	146	10
Heavy equipment mechanics	5,387	34	178	0	135	0	5,634	34
Farm equipment mechanics	1,157	11	15	0	5	0	1,190	11
Industrial machinery repairers	25,791	486	1,909	89	402	4	28,014	583
Machinery maintenance occupations	2,089	57	460	7	67	0	2,621	64
Electronic repairers, communications & industrial equipment	4,653	179	361	16	50	0	5,094	204

Table V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Brickmason & stonemason apprentice	83	8	13	0	0	0	96	8
Tile setters, hard & soft	725	8	42	0	28	0	787	8
Carpet installers	3,072	64	91	8	40	0	3,191	72
Carpenters, except apprentices	35,728	365	1,200	71	382	2	37,304	440
Carpenter apprentices	288	9	16	0	7	0	307	9
Drywell installers	2,988	52	56	9	27	0	3,063	61
Electricians, except apprentices	23,548	379	1,668	45	345	8	25,519	443
Electrician apprentice	1,236	45	35	15	11	0	1,292	60
Electrical power installers & repairers	3,077	18	107	9	4	0	3,211	27
Painters, construction & maintenance	10,531	757	1,294	80	185	12	12,033	846
Paperhangers	323	88	11	0	5	0	347	88
Plasters	713	14	60	0	6	0	784	14
Plumbers, except apprentices	19,743	9	1,331	7	152	0	21,245	104
Plumbers, pipefitter & steamfitter apprentices	724	55	48	0	7	0	774	55
Concrete & terrazzo finishers	1,888	16	463	0	126	0	2,442	16
Glaziers	1,161	132	51	25	18	0	1,222	157
Insulation workers	1,935	50	81	5	24	2	2,057	61
Paving, surfacing, & tamping equipment operators	223	0	45	0	11	0	270	0
Roofers	3,813	47	224	0	53	0	4,141	47
Sheetduct installers - metal	1,073	9	0	0	6	0	1,077	9
Structural metal workers	2,858	58	67	0	23	0	2,982	58
Drillers, earth	986	12	32	0	13	0	1,034	12
Construction trades, N.E.C.	3,875	103	346	7	80	0	4,326	110
Supervisors, extractive occupations	1,027	12	6	6	2	0	1,053	18
Drillers, oil well	722	2	0	0	0	0	725	2
Explosive workers	273	2	31	0	2	0	312	2
Mining machine operators	713	27	7	0	0	0	732	27
Mining occupations	433	23	0	7	0	0	433	30
Supervisors, production occupations precision metal working occupation	75,499	6,996	5,671	1,116	868	102	81,790	8,228
Tool & die makers, exc. apprentices	31,606	364	1,225	50	284	0	33,112	425

Table V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Tool & die maker apprecentices	1,735	50	89	16	24	0	1,855	66
Precision assemblers, metal	1,198	143	49	33	25	0	1,271	176
Machinist, except apprentices	17,887	781	696	185	254	3	18,871	970
Machinist apprentices	268	13	11	0	5	0	289	13
Boilermakers	1,145	10	32	0	7	0	1,181	10
Precision grinders, fitter, & tool sharpeners	1,474	42	48	0	20	2	1,541	44
Patternmakers & model makers, metal	3,890	64	117	12	29	0	4,034	76
Lay-out workers	510	20	13	7	4	0	537	27
Precious stones & metals workers (jewelers)	701	187	15	19	29	7	731	206
Engravers, metal	201	177	0	0	0	0	201	177
Sheet metal workers, exc. apprentices	5,626	62	232	5	37	0	5,916	67
Sheet metal workers apprentices	76	0	0	0	0	0	76	0
Misc. precision metal workers	219	10	26	5	0	0	245	15
Patternmakers & model makers, wood	1,629	15	0	0	6	0	1,629	15
Cabinet makers & bench carpenters	1,575	136	19	0	6	0	1,613	136
Furniture & wood finishers	613	245	50	51	7	7	685	296
Misc. precision wood workers	244	29	25	0	0	0	269	29
Dressmakers	119	2,607	19	355	0	36	138	3,039
Tailors	474	428	79	178	9	17	581	627
Upholsterers	1,233	446	149	61	23	10	1,392	524
Shoe repairers	494	135	66	15	2	4	564	150
Apparel & fabric patternmakers	13	0	0	0	0	0	13	0
Misc. precision apparel & fabric workers	38	198	0	41	0	0	38	239
Hand molders & shapers exc. jewelers	1,315	195	318	22	37	0	1,659	217
Patternmakers, lay-out workers, & cutters	398	94	0	6	0	0	405	100
Optical goods workers	810	803	13	45	4	2	854	848
Dental laboratory & medical appliance technicians	1,142	603	23	49	11	10	1,176	665

Table V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Bookbinders	231	521	24	96	7	25	276	625
Electrical & electronics equipment assemblers	384	732	64	80	0	17	455	862
Misc. precision workers, N.E.C.	1,930	422	163	60	35	30	2,136	500
Butchers & meat cutters	7,529	676	831	165	196	10	8,538	851
Bakers	2,093	2,296	364	154	76	27	2,517	2,484
Food batchmakers	418	224	22	18	18	6	452	257
Inspectors, testers, & graders	4,077	695	224	113	33	2	4,335	814
Adjusters & calibrators	54	49	0	5	0	0	54	54
Water & sewage treatment plant operators	1,055	20	203	13	9	0	1,266	33
Power plant operators	1,204	37	60	16	19	0	1,269	58
Stationary engineers	4,258	130	349	19	19	0	4,681	149
Misc. plant & system operators	974	69	96	16	0	0	1,082	85
Lathe & turning machine set-up operators	6,288	206	607	37	94	5	7,003	243
Lathe & turning machine operators	10,663	718	351	117	142	5	11,112	845
Milling & planing machine operator	1,308	137	103	14	4	1	1,415	151
Punching & stamping press machine operators	16,394	8,664	3,906	2,264	543	289	20,765	11,100
Rolling machine operators	836	151	82	13	20	9	923	164
Drilling & boring machine operators	5,065	823	331	105	57	21	5,484	934
Grinding, abrading, buffing, & polishing machine operators	23,009	3,451	3,966	913	643	81	27,530	4,460
Forging machine operators	1,328	50	195	18	27	0	1,551	68
Numerical control machine operators	158	13	0	0	10	0	168	13
Misc. metal, plastic, stone & glass working machine operators	5,770	332	1,306	80	101	8	7,155	415
Fabricating machine operators, N.E.C.	1,090	619	161	85	41	0	1,290	713
Molding & casting machine operators	6,160	4,109	1,020	551	289	56	7,404	4,741
Metal plating machine operators	1,653	382	211	25	66	11	1,921	412

Table V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Heat treating equipment operators	1,934	88	426	4	77	0	2,408	92
Misc. metal & plastic processing machine operators	583	106	71	6	21	4	677	116
Wood lathe, routing, & planing machine operators	191	10	7	0	0	0	198	10
Sawing machine operators	3,031	419	113	23	27	8	3,219	464
Shaping & joining machine operators	258	155	26	22	0	5	284	185
Nailing & tacking machine operators	200	54	9	0	5	0	209	54
Misc. woodworking machine operators	693	79	24	14	6	5	723	93
Printing machine operators	7,745	1,305	459	208	106	34	8,287	1,532
Photoengravers & lithographers	605	178	21	11	0	0	626	193
Typesetters & compositors	959	1,540	49	22	8	9	1,010	1,573
Misc. printing machine operators	646	849	7	77	12	25	670	929
Winding & twisting machine operators	136	40	16	0	0	0	152	40
Knitting, looping, taping, & weaving machine operators	37	161	0	12	0	0	37	173
Textile cutting machine operators	63	26	0	24	0	0	63	50
Textile sewing machine operators	900	9,341	108	2,113	20	358	1,021	11,921
Shoe machine operators	213	475	3	0	0	1	225	483
Pressing machine operators	152	1,132	187	673	15	16	347	1,842
Laundering & dry cleaning machine operators	1,804	3,565	555	1,502	30	109	2,385	5,223
Misc. textile machine operators	524	312	56	23	9	0	596	344
Cementing & gluing machine operators	672	672	81	122	34	2	775	794
Packaging & filling machine operators	1,744	1,735	287	315	39	61	2,060	2,080
Extruding & forming machine operators	662	89	38	20	17	4	700	115
Mixing & blending machine operators	2,698	199	395	54	118	14	3,161	280
Separating, filtering & clarifying machine operators	2,075	113	114	16	58	0	2,233	133
Compressing & compacting machine operators	552	119	155	15	34	19	724	144

Table V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Painting & paint spraying machine operators	8,442	2,046	1,640	325	221	97	10,223	2,451
Roasting & baking machine operators, food	146	42	62	0	9	0	219	42
Washing, cleaning, & pickling machine operators	330	99	93	21	11	18	437	133
Folding machine operators	497	344	90	34	20	18	603	391
Furnance, kiln, & oven operators, exc. food	7,204	292	1,865	96	134	1	9,190	388
Crushing & grinding machine operators	1,857	112	443	72	90	11	2,347	188
Slicing & cutting machine operators	6,084	1,716	1,017	344	185	34	7,261	2,131
Motion picture projectionist	441	59	23	0	0	0	464	68
Photographic process machine operators	1,415	1,724	55	150	14	36	1,503	1,883
Misc. machine operators, N.E.C.	17,952	5,964	2,886	354	254	20,904	7,385	
Machine operators, not specified industry	43,376	17,397	7,821	3,634	1,495	608	52,429	21,495
Nondurable goods	12,250	7,688	1,458	1,208	320	354	13,947	9,147
Durable goods	44,326	13,812	8,379	3,115	1,412	438	53,865	17,258
Nonmanufacturing industries	4,752	1,861	652	547	117	70	5,521	2,475
Welders & cutters	34,487	2,762	7,655	1,342	1,051	56	42,996	4,195
Solderers & brazers	285	399	20	80	4	6	309	488
Assemblers	72,644	41,736	26,020	12,798	3,208	1,322	101,063	55,862
Handing cutting & trimming occupations	353	83	102	26	2	0	457	109
Handing molding, casting, & forming occupations	419	134	35	0	6	0	454	138
Hand painting, coating, & decorating occupations	967	258	75	18	24	0	1,054	276
Hand engraving & princing occupations	51	3	0	0	0	0	51	3
Handing grinding & polishing occupations	102	24	4	7	3	0	109	31
Misc. hand working occupations	411	275	60	93	13	0	473	370

Table V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Production inspectors, checkers & examiners	28,173	13,580	5,662	3,148	643	375	34,462	17,100
Production testers	2,065	556	274	112	26	0	2,357	685
Production samplers & weighers	245	48	73	21	22	0	340	69
Graders & sorters, exc. agricultural	1,082	1,539	146	270	52	124	1,270	1,879
Supvrs., motor vehicle operators	915	70	104	15	10	0	1,040	85
Truck drivers, heavy	61,940	1,323	6,126	196	791	23	68,824	1,562
Truck drivers, light	18,547	1,293	1,352	94	261	8	20,131	1,407
Driver-sales workers	7,230	654	421	78	41	15	7,695	732
Bus drivers	3,889	10,574	1,730	960	80	81	5,697	11,601
Taxicab drivers & chauffeurs	3,911	786	1,800	201	102	5	5,798	998
Parking lot attendants	860	153	497	22	27	10	1,373	179
Motor transp. occupations, N.E.C.	56	13	17	0	5	0	81	13
Railroad conductors & yardmasters	1,888	21	49	0	30	0	1,983	21
Locomotive operating occupations	1,900	25	98	15	26	0	2,018	40
Railroad brake, signal, & switch operators	2,657	18	184	0	62	0	2,896	18
Rail vehicle operators, N.E.C.	222	2	0	7	2	0	237	9
Ship captains & mates, exc. fishing boats	351	4	0	0	0	0	356	4
Sailors & deckhands	705	38	21	0	0	0	728	38
Marine engineers	98	0	0	0	7	0	98	0
Bridge, lock, & lighthouse tenders	170	3	8	0	0	0	180	3
Supvrs., material moving equipment operators	1,388	58	98	30	27	6	1,517	88
Operating engineers	8,285	56	495	19	50	0	8,883	84
Longshore equipment operators	6	0	25	0	0	0	31	0
Hoist & winch operators	716	49	80	0	22	0	831	49
Crane & tower operators	5,290	101	1,225	50	184	0	6,667	151
Excavating & loading macine operators	2,205	27	32	0	8	0	2,261	27
Grader, dozer, & scraper operators	2,277	50	103	0	8	0	2,392	50
Industrial truck & tractor equipment operators	22,717	962	4,809	186	554	32	28,080	1,156

Table V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE, BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Misc. material moving equip. operators	6,972	1,019	1,244	256	230	44	8,392	1,293
Supvrs., handlers, equip. cleaners, & laborers, N.E.C.	68	9	12	0	0	0	80	9
Helpers, mechanics & repairers	473	30	57	24	15	0	545	59
Helpers, construction trades	2,548	31	272	0	97	0	2,917	31
Helpers, surveyor	[illegible]2	35	22	0	7	0	291	38
Helpers, extractive occupations	211	12	10	0	0	0	221	12
Construction laborers	20,361	552	3,062	81	522	38	23,908	672
Production helpers	2,338	872	385	140	62	3	2,799	1,053
Garbage collectors	1,533	68	499	15	53	C	2,104	86
Stevedores	55	0	32	0	0	0	87	0
Stock handlers & baggers	26,938	6,846	2,705	530	511	88	30,141	7,436
Machine feeders & offbearers	1,559	1,060	160	188	113	18	1,789	1,290
Freight, stock, & material handlers, N.E.C.	12,674	734	1,727	312	275	30	14,673	1,073
Garage & service station related occupations	12,851	1,329	1,120	101	232	8	14,226	1,441
Vehicle washers & equip. cleaners	6,077	656	1,250	136	117	5	7,465	802
Hand packers & packagers	5,915	12,977	1,107	1,672	272	477	7,226	14,938
Laborers, except construction	30,893	6,340	6,112	1,590	1,066	179	37,977	8,050
Nondurable goods	3,514	1,481	546	261	160	51	4,211	1,757
Durable goods	12,562	2,394	3,521	827	526	64	16,492	3,277
Transportation, communications, & other public utilities	3,212	283	581	50	112	0	3,880	339
Wholesale & retail trade	7,213	1,311	743	114	156	18	8,143	1,450
All other industries	4,392	871	721	338	112	46	5,251	1,227
Unemployed, no civilian work experience since 1975	9,836	15,567	6,360	8,077	456	730	16,650	24,472
TOTALS	2,280,157	1,525,398	255,246	226,593	39,381	25,667	2,579,198	1,781,039

SOURCE: Bureau of the Census, special release.

a. Hispanics may fall into any racial category.

b. Includes white, black, and all other races.

Note: These data are from the Equal Employment Opportunity Special File, prepared by Applications Programming at Michigan State University.

N.E.C. Not elsewhere classified.

TABLE V-7. UNEMPLOYED PERSONS, BY DURATION OF UNEMPLOYMENT, DATA BASED ON A HOUSEHOLD SAMPLE IN MICHIGAN AND THE UNITED STATES: 1978-1981

	Michigan				United States			
	1978	1979	1980	1981	1978	1979	1980	1981
Thousands of persons	289	335	541	528	6,047	5,963	7,461	8,273
Percentage distribution by duration of unemployment:								
Less than 15 weeks	79.5	76.4	64.7	60.5	77.2	79.8	75.4	72.4
15-26 weeks	11.3	13.5	16.5	13.5	12.3	11.5	13.8	13.6
27-51 weeks	4.4	4.5	11.6	11.5	5.3	4.5	6.5	7.3
52 weeks or longer	4.7	5.7	7.2	14.5	5.1	4.2	4.3	6.8
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, Employment and Earnings (Washington, D.C.: monthly), Table 17.

TABLE V-8. UNEMPLOYED PERSONS, BY REASON FOR UNEMPLOYMENT, DATA BASED ON A HOUSEHOLD SAMPLE IN MICHIGAN AND THE UNITED STATES: 1978-1981

(In thousands)

	Michigan				United States			
	1978	1979	1980	1981	1978	1979	1980	1981
Job losers:								
On lay off	57	91	218	156	698	835	1,476	1,430
Others	53	72	119	137	1,816	1,720	2,381	2,837
TOTAL	110	163	337	293	2,514	2,555	3,857	4,267
Job leavers	36	44	37	33	851	854	863	923
Reentrant	96	93	120	132	1,814	1,758	1,886	2,102
New entrants	47	35	47	71	867	797	855	981
TOTAL UNEMPLOYED	289	335	541	528	6,047	5,963	7,461	8,273

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, Employment and Earnings (Washington, D.C.: monthly), Table 13.

TABLE V-9. MICHIGAN AND U.S. CIVILIAN LABOR FORCE, DATA BASED ON A HOUSEHOLD SAMPLE, BY MONTH: 1972-1982

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1972	3,620	3,639	3,641	3,656	3,762	3,758	3,740	3,724	3,647	3,734	3,729	3,739
1973	3,715	3,753	3,734	3,718	3,776	3,855	3,883	3,851	3,774	3,798	3,858	3,919
1974	3,867	3,872	3,847	3,828	3,831	3,879	3,950	3,933	3,855	3,920	3,913	3,856
1975	3,901	3,904	3,933	3,879	3,834	3,915	3,893	3,913	3,858	3,852	3,928	3,881
1976	3,857	3,955	3,954	3,939	3,959	4,009	4,036	4,079	4,012	4,012	4,041	4,010
1977	4,016	4,085	4,092	4,056	4,038	4,166	4,140	4,157	4,121	4,170	4,179	4,134
1978	4,164	4,162	4,128	4,158	4,159	4,243	4,230	4,203	4,187	4,185	4,232	4,275
1979	4,248	4,279	4,281	4,244	4,318	4,374	4,394	4,308	4,315	4,324	4,348	4,317
1980	4,256	4,275	4,224	4,219	4,306	4,393	4,350	4,340	4,287	4,924	4,281	4,260
1981	4,209	4,193	4,207	4,274	4,336	4,402	4,402	4,382	4,296	4,344	4,315	4,261
1982	4,227	4,240	4,251	4,218	4,323	4,338	4,406	4,379	4,307	4,279	4,262	4,326
						United States						
1972	84,940	85,180	85,828	85,759	86,028	88,540	89,127	88,894	87,242	87,741	87,548	87,593
1973	86,327	87,303	87,961	88,127	88,238	91,124	91,655	90,888	89,782	90,547	90,690	90,520
1974	89,924	90,273	90,486	90,366	90,830	93,481	94,238	93,446	92,449	92,909	92,638	92,368
1975	92,200	91,972	92,464	92,459	92,888	95,174	96,053	95,525	94,023	94,510	94,041	93,995
1976	93,938	94,075	94,400	94,782	94,925	97,499	98,605	98,133	96,430	96,999	97,116	97,004
1977	96,197	96,837	97,277	97,352	97,755	100,743	100,960	100,744	99,367	100,144	100,522	100,213
1978	99,664	99,641	100,166	100,610	101,092	104,100	104,512	103,946	102,748	103,474	103,586	103.565
1979	102,802	103,185	103,606	103,198	103,476	106,210	107,096	106,489	105,510	106,084	105,871	106,040
1980	105,344	105,412	105,510	105,592	106,233	108,311	109,268	108,404	106,989	107,673	107,532	107,009
1981	106,885	107,015	107,634	107,906	108,586	109,904	110,742	110,099	108,273	109,244	109,179	108,574
1982	108,014	108,324	108,761	108,814	109,914	111,569	112,526	111,887	110,546	110,767	110,855	110,477

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, special release.

NOTE: Figures represent the sum of civilian employment and unemployment and are not seasonally adjusted.

TABLE V-10. MICHIGAN AND U.S. CIVILIAN EMPLOYMENT, DATA BASED ON A HOUSEHOLD SAMPLE, BY MONTH: 1972-1982

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1972	3,333	3,349	3,343	3,362	3,472	3,456	3,431	3,484	3,407	3,547	3,527	3,558
1973	3,451	3,460	3,482	3,512	3,580	3,635	3,642	3,647	3,610	3,619	3,658	3,686
1974	3,644	3,589	3,523	3,551	3,576	3,606	3,653	3,656	3,581	3,663	3,578	3,475
1975	3,366	3,336	3,346	3,349	3,362	3,358	3,383	3,455	3,429	3,465	3,545	3,462
1976	3,462	3,532	3,533	3,546	3,591	3,611	3,650	3,699	3,677	3,711	3,703	3,676
1977	3,659	3,686	3,694	3,759	3,742	3,815	3,775	3,774	3,814	3,899	3,856	3,844
1978	3,825	3,864	3,832	3,884	3,886	3,944	3,923	3,866	3,944	3,955	3,953	3,987
1979	3,908	3,928	3,940	3,879	4,008	4,058	4,056	3,984	4,006	4,011	4,005	3,949
1980	3,817	3,794	3,757	3,694	3,698	3,772	3,732	3,792	3,772	3,768	3,744	3,741
1981	3,627	3,593	3,653	3,752	3,842	3,916	3,874	3,899	3,836	3,840	3,798	3,647
1982	3,550	3,556	3,527	3,564	3,707	3,718	3,757	3,742	3,682	3,642	3,563	3,580
						United States						
1972	79,459	79,734	80,578	81,027	81,646	83,073	83,911	83,993	82,537	83,223	83,231	83,424
1973	81,598	82,405	83,397	83,900	84,383	86,217	87,042	86,616	85,552	86,716	86,562	86,390
1974	84,843	85,061	85,659	85,994	86,611	88,022	88,897	88,479	87,162	87,779	86,863	86,169
1975	83,928	83,573	84,018	84,551	85,173	86,507	87,742	87,726	86,399	87,160	86,700	86,689
1976	85,652	85,932	86,769	87,786	88,510	89,727	90,908	90,690	89,281	90,041	89,892	89,850
1977	88,217	88,601	89,597	90,660	91,475	93,154	93,879	93,846	92,788	93,779	94,027	94,183
1978	92,616	92,755	93,545	94,783	95,486	97,530	97,917	97,855	96,790	97,851	97,788	97,669
1979	96,201	96,536	97,282	97,478	98,057	99,800	100,814	100,174	99,533	100,120	99,907	100,013
1980	98,111	98,235	98,527	98,569	98,732	99,830	100,665	100,202	99,334	99,999	99,850	99,579
1981	98,139	98,401	99,364	100,345	100,855	101,419	102,612	102,152	100,389	101,028	100,502	99,562
1982	97,831	97,946	98,471	98,858	99,957	100,683	101,490	101,177	99,851	99,825	99,379	98,849

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, special release.

NOTE: Employed persons comprise two groups. The first includes all those who were 16 years old or older and, during the survey week, did any work at all as paid employees, or in their own business or profession, or on their own farm, or who worked 15 hours or more as unpaid workers in a family-operated enterprise. The second includes all those who did not work but had jobs or businesses from which they were temporarily absent due to illness, bad weather, vacation, labor-management dispute, or various personal reasons--whether or not they were paid by their employers for the time off and whether or not they were seeking other jobs. Data are not seasonally adjusted.

TABLE V-11. SEASONALLY ADJUSTED MICHIGAN AND U.S. CIVILIAN EMPLOYMENT, DATA BASED ON A HOUSEHOLD SAMPLE, BY MONTH: 1972-1982

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1972	3,378	3,398	3,391	3,405	3,469	3,438	3,402	3,424	3,417	3,506	3,485	3,551
1973	3,499	3,507	3,531	3,556	3,583	3,619	3,613	3,588	3,613	3,576	3,611	3,681
1974	3,697	3,635	3,571	3,595	3,583	3,591	3,626	3,601	3,576	3,618	3,531	3,474
1975	3,419	3,376	3,393	3,389	3,374	3,343	3,360	3,405	3,417	3,418	3,501	3,463
1976	3,516	3,570	3,579	3,582	3,604	3,593	3,630	3,658	3,660	3,664	3,662	3,677
1977	3,713	3,721	3,740	3,796	3,756	3,790	3,756	3,742	3,790	3,849	3,819	3,839
1978	3,883	3,904	3,882	3,925	3,898	3,907	3,902	3,842	3,915	3,902	3,917	3,975
1979	3,975	3,976	3,997	3,926	4,019	4,010	4,029	3,959	3,970	3,955	3,967	3,932
1980	3,895	3,856	3,821	3,747	3,705	3,716	3,698	3,763	3,731	3,709	3,700	3,724
1981	3,716	3,665	3,722	3,810	3,847	3,856	3,836	3,863	3,791	3,780	3,752	3,632
1982	3,645	3,634	3,597	3,625	3,711	3,655	3,709	3,687	3,627	3,573	3,512	3,570
						United States						
1972	80,959	81,108	81,573	81,655	81,887	82,083	82,230	82,578	82,543	82,616	82,990	83,400
1973	83,161	83,912	84,452	84,559	84,648	85,185	85,299	85,204	85,488	85,987	86,320	86,401
1974	86,555	86,754	86,819	86,669	86,891	86,941	87,149	87,037	87,051	86,995	86,626	86,144
1975	85,627	85,256	85,187	85,189	85,451	85,355	85,894	86,234	86,279	86,370	86,456	86,665
1976	87,400	87,672	87,985	88,416	88,794	88,563	89,093	89,223	89,173	89,274	89,634	89,803
1977	89,928	90,342	90,808	91,271	91,754	91,959	92,084	92,441	92,702	93,052	93,761	94,105
1978	94,374	94,502	94,736	95,372	95,771	96,336	96,108	96,474	96,694	97,146	97,475	97,593
1979	97,930	98,273	98,416	98,038	98,324	98,684	99,054	98,853	99,428	99,431	99,570	99,957
1980	99,833	99,913	99,607	99,112	98,963	98,785	98,891	98,920	99,208	99,328	99,534	99,632
1981	99,901	100,069	100,406	100,878	101,045	100,430	100,864	100,840	100,258	100,343	100,172	99,613
1982	99,581	99,590	99,492	99,340	100,117	99,764	99,732	99,839	99,720	99,093	99,032	99,093

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, special release.

NOTE: Unemployed persons include those 16 year old or older who did not work at all during the survey week, were looking for work, and were available for work during the reference period, except for temporary illness. This includes those who were available for work and waiting to be recalled from layoff or were waiting to report to a new wage or salary job scheduled to start within ~~the~~ following 30 days.

TABLE V-12. MICHIGAN AND U.S. CIVILIAN UNEMPLOYMENT, DATA BASED ON A HOUSEHOLD SAMPLE, BY MONTH: 1972-1982

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1972	287	290	298	294	289	301	308	239	240	188	201	180
1973	264	293	253	206	195	220	240	204	164	179	199	233
1974	223	283	324	277	255	273	296	277	274	258	334	381
1975	535	568	587	529	471	557	510	458	429	387	383	420
1976	396	423	420	394	368	398	386	380	335	302	338	335
1977	357	400	398	296	297	352	366	383	308	270	323	291
1978	339	299	296	274	273	299	308	337	243	229	280	288
1979	341	351	340	365	311	316	338	324	309	313	343	367
1980	439	481	468	525	607	621	618	549	515	526	536	520
1981	583	600	553	521	493	486	527	483	460	504	517	614
1982	677	684	725	654	616	620	648	637	624	637	699	746
						United States						
1972	5,481	5,446	5,250	4,732	4,382	5,467	5,216	4,901	4,705	4,518	4,317	4,169
1973	4,730	4,898	4,564	4,227	3,855	4,907	4,613	4,273	4,230	3,830	4,127	4,130
1974	5,081	5,212	4,826	4,372	4,219	5,459	5,341	4,967	5,287	5,131	5,775	6,199
1975	8,272	8,399	8,446	7,908	7,715	8,667	8,311	7,799	7,624	7,350	7,341	7,307
1976	8,286	8,143	7,631	6,996	6,415	7,772	7,697	7,443	7,148	6,958	7,224	7,154
1977	7,980	8,237	7,680	6,692	6,280	7,589	7,081	6,897	6,579	6,365	6,495	6,031
1978	7,048	6,886	6,621	5,826	5,605	6,481	6,597	6,090	5,958	5,624	5,797	5,896
1979	6,602	6,649	6,325	5,720	5,419	6,409	6,282	6,315	5,978	5,964	5,964	6,027
1980	7,234	7,177	6,983	7,023	7,501	8,481	8,603	8,202	7,655	7,674	7,682	7,430
1981	8,746	8,614	8,271	7,561	7,731	8,485	8,130	7,947	7,884	8,216	8,676	9,013
1982	10,183	10,373	10,290	9,957	9,957	10,886	11,036	10,710	10,695	10,942	11,476	11,628

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, special release.

NOTE: Unemployed persons include those 16 years old or older who did not work at all during the survey week, were looking for work, and were available for work during the reference period, except for temporary illness. This includes those who were available for work and waiting to be recalled from layoff or were waiting to report to a new wage or salary job scheduled to start within the following 30 days.

TABLE V-13. SEASONALLY ADJUSTED MICHIGAN AND U.S. UNEMPLOYMENT RATES, DATA BASED ON A HOUSEHOLD SAMPLE, BY MONTH: 1972-1982

Year	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1972	7.4	7.0	7.1	7.7	7.9	7.8	7.5	6.9	7.5	6.3	6.4	5.0
1973	6.7	6.8	5.6	5.2	5.4	5.3	5.5	5.8	5.3	6.1	6.2	6.1
1974	5.4	6.1	7.1	6.8	6.9	6.6	7.0	7.5	8.0	8.1	9.5	10.0
1975	13.3	13.3	13.6	13.2	12.5	13.8	12.7	12.1	12.0	11.7	10.6	11.0
1976	9.8	9.5	9.4	9.5	9.6	9.5	9.2	9.6	9.2	9.0	9.1	8.6
1977	8.4	8.7	8.7	7.0	7.6	8.1	8.4	9.5	8.4	7.9	8.3	7.4
1978	7.5	6.1	6.3	6.3	6.8	6.8	6.8	8.2	6.8	6.8	7.2	7.2
1979	7.3	7.1	7.2	8.3	7.3	7.0	7.1	7.8	8.2	8.4	8.5	9.0
1980	9.4	10.1	10.3	12.0	14.1	14.1	13.7	13.0	13.2	13.4	13.3	12.7
1981	12.8	13.0	12.3	11.8	11.4	11.0	11.5	11.4	11.9	12.7	12.8	14.9
1982	14.9	14.8	16.1	15.0	14.3	14.4	14.4	15.2	15.9	16.1	17.2	17.6
						United States						
1972	5.8	5.7	5.8	5.7	5.7	5.7	5.6	5.6	5.5	5.6	5.3	5.2
1973	4.9	5.0	4.9	5.0	4.9	4.9	4.8	4.8	4.8	4.6	4.8	4.9
1974	5.1	5.2	5.1	5.1	5.1	5.4	5.5	5.5	5.9	6.0	6.6	7.2
1975	8.1	8.1	8.6	8.8	9.0	8.8	8.6	8.4	8.4	8.4	8.3	8.2
1976	7.9	7.7	7.6	7.7	7.4	7.6	7.8	7.8	7.6	7.7	7.8	7.8
1977	7.5	7.6	7.4	7.2	7.0	7.2	6.9	7.0	6.8	6.8	6.8	6.4
1978	6.4	6.3	6.3	6.1	6.0	5.9	6.2	5.9	6.0	5.8	5.9	6.0
1979	5.9	5.9	5.8	5.8	5.7	5.7	5.7	6.0	5.8	6.0	5.9	6.0
1980	6.3	6.2	6.3	6.9	7.5	7.5	7.8	7.7	7.5	7.5	7.5	7.3
1981	7.4	7.4	7.3	7.3	7.5	7.4	7.2	7.3	7.6	8.0	8.3	8.8
1982	8.5	8.8	9.0	9.4	9.5	9.5	9.8	9.8	10.1	10.4	10.8	10.8

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, special release.

NOTE: Figures show unemployment as a percentage of civilian labor force and are not seasonally adjusted.

TABLE V-6. DETAILED OCCUPATIONAL CLASSIFICATION OF MICHIGAN'S EXPERIENCED CIVILIAN LABOR FORCE BY RACE, SEX AND HISPANIC DESIGNATION: CENSUS 1980 (cont.)

Occupations	White		Black		Hispanic[a]		Total[b]	
	Male	Female	Male	Female	Male	Female	Male	Female
Data processing equipment repairer	1,575	55	67	15	19	27	1,655	83
Household appliance & power tool repairers	2,644	8	104	0	35	0	2,756	8
Telephone line installers & repairers	1,992	89	135	14	14	0	2,135	103
Telephone installers & repairers	6,972	932	489	187	94	40	7,499	1,147
Misc. electrical & electronic equip. repairers	1,027	41	83	22	25	7	1,130	74
Heating, air conditioning, & refrigeration mechanics	5,289	51	249	0	51	0	5,589	51
Camera, watch, & musical instrument repairers	1,089	111	36	43	17	0	1,151	163
Locksmiths & repairers-safe	506	23	28	0	0	0	539	23
Office machine repairers	1,313	81	79	26	7	4	1,397	107
Mechanical controls & valve repairers	1,223	11	149	9	20	0	1,389	20
Elevator installers & repairers	651	5	18	0	12	5	669	5
Millwrights	13,334	133	1,118	57	293	0	14,676	190
Specified mechanics & repairers, N.E.C.	11,968	470	929	54	232	3	13,062	535
Not specified mechanics & repairers	5,589	184	490	49	126	8	6,255	245
Supervisors, brickmasons, stonemasons, & tile setters	144	0	20	0	0	0	166	0
Supervisors, carpenters & related workers	1,011	0	24	0	12	0	1,038	0
Supervisors, electricians & power transmission installers	1,354	6	28	0	17	0	1,382	6
Supervisors, painters, paperhangers and plasters	263	7	60	4	2	0	327	11
Supervisors, plumbers, pipefitters. and steamfitters	514	16	0	0	0	0	514	16
Supervisors, N.E.C.	20,222	237	800	63	180	0	21,186	307
Brickmasons & stonemasons, except apprentices	7,267	89	727	13	75	0	8,081	102

TABLE V-15. MICHIGAN AND U.S. NONAGRICULTURAL WAGE AND SALARY JOBS, DATA BASED ON AN EMPLOYER SURVEY, BY MONTH: 1973-1982

(In thousands)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Michigan												
1973	3,182	3,186	3,209	3,252	3,293	3,321	3,271	3,279	3,325	3,849	3,377	3,368
1974	3,258	3,214	3,217	3,243	3,282	3,324	3,295	3,310	3,345	3,327	3,306	3,211
1975	3,082	3,034	3,047	3,074	3,126	3,145	3,118	3,146	3,191	3,219	3,226	3,136
1976	3,163	3,178	3,200	3,252	3,285	3,315	3,266	3,298	3,338	3,344	3,376	3,383
1977	3,287	3,302	3,333	3,367	3,431	3,470	3,455	3,455	3,519	3,549	3,562	3,579
1978	3,483	3,487	3,522	3,577	3,622	3,646	3,603	3,593	3,671	3,694	3,702	3,712
1979	3,600	3,605	3,625	3,630	3,692	3,701	3,648	3,588	3,645	3,650	3,627	3,635
1980	3,501	3,499	3,491	3,440	3,425	3,420	3,355	3,357	3,403	3,471	3,481	3,470
1981	3,363	3,352	3,375	3,380	3,405	3,418	3,342	3,317	3,370	3,393	3,352	3,306
1982	3,204	3,197	3,204	3,190	3,230	3,217	3,169	3,154	3,191	3,182	3,167	3,166
United States												
1973	74,491	74,869	75,422	76,008	76,591	77,508	76,568	76,971	77,562	78,185	78,587	78,715
1974	76,922	77,039	77,362	77,911	78,513	79,210	78,311	78,459	78,959	79,258	78,937	78,295
1975	76,066	75,641	75,686	76,018	76,649	77,143	76,466	76,993	77,602	78,158	78,312	78,600
1976	77,252	77,482	78,092	78,919	79,414	80,043	79,272	79,537	80,244	80,479	80,839	81,016
1977	79,427	79,636	80,493	81,418	82,252	83,210	82,551	82,845	83,798	84,298	84,744	84,980
1978	83,318	83,614	84,607	85,910	86,715	87,701	86,872	87,174	87,801	88,417	88,945	89,272
1979	87,514	87,751	88,654	89,193	90,012	90,857	89,869	89,969	90,521	91,000	91,204	91,335
1980	89,553	89,691	90,253	90,603	90,623	90,778	89,436	89,723	90,390	90,985	91,329	91,513
1981	89,688	89,833	91,371	90,983	91,432	92,056	91,107	91,087	91,620	91,884	91,765	91,437
1982	89,269	89,945	89,679	89,984	90,455	90,570	89,238	89,013	89,523	89,516	89,487	89,358

SOURCE: Michigan Department of Labor, Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, Employment and Earnings, (Washington, D.C. monthly). Table B2.

NOTE: These figures represent the number of jobs reported by employers. A single person who holds more than one job may be counted more than once in this survey. Excluded are unpaid family workers, domestic servants in private homes, proprietors and other self-employed persons, and farm workers.

TABLE V-16. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1976-1982

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Alcona, Iosco						
1976	12,475	1,375	11.0	2,500	1,425	3,500
1977	12,275	1,500	12.2	2,475	1,250	3,475
1978	12,600	1,500	11.9	2,375	1,400	3,750
1979	13,100	1,550	11.8	2,625	1,450	3,650
1980	13,075	2,000	15.3	2,825	1,100	3,700
1981	13,175	1,925	14.6	2,650	1,125	3,750
1982	12,975	2,125	16.4	2,900	1,050	3,400
Alger						
1976	3,675	525	14.3	575	750	900
1977	3,725	525	14.2	575	900	850
1978	3,400	425	12.5	550	850	825
1979	3,650	450	12.3	575	900	850
1980	3,675	525	14.3	675	875	800
1981	3,650	650	17.8	550	750	850
1982	3,650	650	17.8	550	750	850
Allegan						
1976	30,475	2,450	8.0	3,600	6,550	5,675
1977	32,075	2,200	6.9	3,625	7,000	6,250
1978	33,075	1,900	5.7	3,600	7,425	6,800
1979	33,650	2,275	6.8	3,900	7,575	6,650
1980	34,200	3,825	11.2	3,875	7,000	6,850
1981	35,050	3,900	11.1	3,500	7,275	6,800
1982	36,825	5,525	15.0	3,375	7,375	6,675
Alpena						
1976	14,275	2,300	16.1	2,575	2,700	4,900
1977	15,300	2,125	13.9	2,425	2,700	5,350
1978	15,600	1,950	12.5	2,425	2,850	5,600
1979	15,625	1,750	11.2	2,425	2,900	5,550
1980	15,800	2,200	13.9	2,475	2,725	5,700
1981	15,650	2,250	14.4	2,425	2,700	5,425
1982	15,025	3,200	21.3	2,375	2,150	4,775
Antrim						
1976	6,650	800	12.0	875	1,275	1,350
1977	6,725	700	10.4	900	1,300	1,400
1978	6,950	625	9.0	925	1,375	1,550
1979	7,575	750	9.9	1,100	1,400	1,700
1980	7,525	1,175	15.6	1,175	1,200	1,650
1981	7,450	1,325	17.8	1,100	1,050	1,625
1982	7,175	1,525	21.3	1,075	975	1,425

TABLE V-16. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1976-1982 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Arenac						
1976	7,375	875	11.9	775	900	1,450
1977	7,500	825	11.0	875	975	1,500
1978	6,675	725	10.9	750	800	1,425
1979	6,400	550	8.6	775	725	1,450
1980	6,175	875	14.2	775	375	1,550
1981	6,200	700	11.3	725	375	1,650
1982	6,275	850	13.5	675	325	1,650
Baraga						
1976	3,225	475	14.7	1,150	575	700
1977	3,025	400	13.2	700	775	725
1978	3,250	350	10.8	775	850	900
1979	3,300	375	11.4	750	750	975
1980	3,300	450	13.6	775	675	975
1981	3,125	475	15.2	725	625	875
1982	3,325	725	21.8	700	525	925
Barry, Calhoun						
1976	82,300	8,100	9.8	12,000	23,600	28,000
1977	80,900	6,700	8.3	12,500	23,800	29,300
1978	80,800	5,400	6.7	12,100	24,300	30,600
1979	80,000	5,500	6.9	12,200	23,800	30,300
1980	80,300	9,200	11.5	12,500	20,900	30,500
1981	79,800	9,100	11.4	12,100	19,600	30,400
1982	81,600	13,100	16.1	11,900	18,000	29,800
Bay						
1976	51,500	4,900	9.5	5,200	10,500	18,600
1977	51,400	4,200	8.2	5,200	11,000	18,900
1978	50,300	3,300	6.6	4,800	11,100	19,100
1979	51,400	3,900	7.6	5,500	10,800	19,300
1980	54,000	8,000	14.8	5,600	9,400	19,600
1981	53,200	6,600	12.4	5,400	9,100	19,900
1982	52,600	8,400	16.0	4,900	8,400	18,900
Benzie						
1976	4,025	450	11.2	675	550	1,300
1977	4,175	475	11.4	675	550	1,425
1978	4,175	375	9.0	675	625	1,450
1979	4,400	550	12.5	675	700	1,375
1980	4,425	700	15.8	725	650	1,350
1981	4,625	925	20.0	700	600	1,350
1982	4,450	1,025	23.0	675	525	1,225

TABLE V-16. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1975-1981 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment[a] Number	Unemployment[c] Rate	Wage and salary workers[b] Government[d]	Wage and salary workers[b] Manufacturing	Wage and salary workers[b] Other[e]
Berrien						
1975	74,400	11,600	15.6	8,300	25,400	25,900
1976	74,800	8,400	11.2	8,500	25,500	28,200
1977	75,700	6,900	9.1	8,800	26,500	30,200
1978	74,000	6,200	8.4	8,300	26,100	30,700
1979	74,200	6,600	8.9	8,800	25,100	30,500
1980	73,300	9,500	13.0	9,000	21,400	30,600
1981	73,200	9,300	12.7	8,700	21,000	29,900
Branch						
1975	19,725	3,025	15.3	3,475	3,450	3,900
1976	21,175	2,000	9.4	3,750	4,150	4,475
1977	22,575	1,775	7.9	3,725	4,750	4,875
1978	23,225	1,375	5.9	3,650	5,425	5,050
1979	23,450	1,800	7.7	3,950	5,375	4,750
1980	21,750	2,925	13.4	3,950	4,050	4,525
1981	20,425	2,450	12.0	3,600	3,725	4,300
Calhoun - see Barry, Calhoun						
Cass						
1975	19,925	2,700	13.6	2,125	2,975	3,125
1976	22,475	1,800	8.0	2,125	3,900	3,525
1977	23,600	1,725	7.3	2,325	4,175	3,675
1978	24,675	1,425	5.8	2,100	4,825	3,750
1979	23,075	1,800	7.8	2,200	4,150	3,550
1980	21,450	2,700	12.6	2,400	3,025	3,600
1981	22,200	2,350	10.6	2,225	3,350	3,625
Charlevoix						
1975	8,050	1,425	17.7	1,025	1,975	2,025
1976	8,325	1,100	13.2	1,025	2,275	2,100
1977	9,100	1,050	11.5	1,025	2,600	2,450
1978	9,500	950	10.0	1,050	2,725	2,775
1979	9,875	900	9.1	1,275	2,750	2,825
1980	9,550	1,400	14.7	1,375	2,175	2,800
1981	9,575	1,475	15.4	1,275	2,125	2,775
Cheboygan						
1975	8,575	2,075	24.2	850	1,000	2,650
1976	8,775	1,800	20.5	900	1,050	2,850
1977	9,200	1,900	20.7	900	1,100	3,050
1978	9,375	1,875	20.0	900	1,175	3,175
1979	9,775	1,550	15.9	1,050	1,275	3,375
1980	10,150	1,900	18.7	1,250	1,200	3,400
1981	10,425	2,100	20.1	1,050	1,200	3,500

TABLE V-16. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1976-1982 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[a]	Manufacturing	Other[e]
Chippewa						
1976	13,000	2,500	19.2	4,325	425	3,950
1977	13,025	2,325	17.9	4,275	475	4,150
1978	12,300	2,325	18.9	3,550	225	4,325
1979	11,725	2,075	17.7	3,625	300	4,100
1980	11,875	2,150	18.1	3,625	450	4,075
1981	12,725	2,550	20.0	3,500	550	4,250
1982	12,950	3,025	23.4	3,350	525	4,125
Clare						
1976	8,900	1,200	13.5	1,275	900	2,200
1977	9,350	1,250	13.4	1,250	975	2,325
1978	9,725	1,000	10.3	1,275	1,150	2,500
1979	9,925	1,025	10.3	1,425	1,050	2,625
1980	9,350	1,450	15.5	1,475	625	2,650
1981	9,650	1,425	14.8	1,425	575	2,725
1982	9,525	1,500	15.7	1,300	550	2,675
Clinton, Eaton, Ingham, Ionia						
1976	211,300	18,100	8.6	60,800	38,500	71,300
1977	220,100	17,000	7.7	63,500	42,000	74,600
1978	255,700	14,400	6.4	64,800	44,500	79,500
1979	233,900	15,600	6.7	66,200	44,700	83,800
1980	236,600	24,600	10.4	67,400	37,800	86,000
1981	243,600	24,800	10.2	65,400	40,900	86,400
1982	238,900	28,900	12.1	63,400	37,200	83,400
Crawford						
1976	4,000	500	12.5	750	600	1,325
1977	4,075	500	12.3	650	600	1,375
1978	3,900	475	12.2	600	550	1,375
1979	3,850	575	14.9	650	325	1,450
1980	3,875	600	15.5	675	300	1,525
1981	4,125	750	18.2	700	250	1,575
1982	4,225	775	18.3	750	275	1,500
Delta						
1976	16,100	1,575	9.8	1,925	3,550	5,425
1977	16,375	1,800	11.0	2,200	3,475	5,325
1978	15,950	1,625	10.2	2,200	3,350	5,700
1979	16,900	1,825	10.8	2,400	3,400	5,850
1980	17,175	1,975	11.5	2,500	3,075	6,350
1981	19,125	2,000	10.5	2,325	3,150	7,600
1982	18,650	3,350	18.0	2,250	2,800	6,550

TABLE V-16. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1976-1982 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Other[e]
Dickinson						
1976	11,050	925	8.4	1,925	1,950	4,800
1977	11,475	875	7.6	2,000	2,125	5,050
1978	12,000	875	7.3	1,975	2,325	5,375
1979	12,425	850	6.8	2,100	2,325	5,650
1980	12,675	1,050	8.3	2,275	2,275	5,725
1981	12,850	1,575	12.3	2,175	2,100	5,425
1982	12,700	1,875	14.8	2,175	1,900	5,225
Eaton - see Clinton, Eaton, Ingham, Ionia						
Emmet						
1976	12,650	1,300	10.3	1,375	1,075	5,625
1977	13,075	1,275	9.8	1,350	1,125	5,975
1978	13,350	1,150	8.6	1,250	1,300	6,300
1979	13,450	1,275	9.5	1,300	1,375	6,200
1980	13,575	1,575	11.6	1,375	1,250	6,225
1981	14,000	2,000	14.3	1,425	1,150	6,125
1982	13,925	1,975	14.2	1,475	1,150	5,975
Genesee, Shiawassee						
1976	204,800	20,300	9.9	28,100	76,900	76,600
1977	212,400	18,600	8.8	28,000	83,100	80,800
1978	215,900	17,000	7.9	25,500	85,600	86,400
1979	223,400	19,600	8.8	28,300	85,100	88,300
1980	226,800	40,000	17.6	29,700	70,400	86,200
1981	225,800	34,000	15.1	28,200	72,600	86,900
1982	223,700	46,600	20.8	27,300	61,900	83,100
Gladwin - see Midland, Gladwin						
Gogebic						
1976	8,300	1,075	13.0	1,500	1,200	2,325
1977	8,075	1,000	12.4	1,525	975	2,500
1978	8,050	800	9.9	1,525	950	2,725
1979	8,275	650	7.9	1,550	925	2,875
1980	8,525	725	8.5	1,600	900	3,025
1981	9,000	950	10.6	1,525	675	3,250
1982	8,950	1,325	14.8	1,525	475	3,125
Grand Traverse, Kalkaska, Leelanau						
1976	34,625	3,850	11.1	4,675	3,750	14,600
1977	37,200	3,475	9.3	4,975	3,925	16,300
1978	39,525	2,925	7.4	5,350	4,475	18,650
1979	42,125	2,700	6.4	5,500	4,925	19,800
1980	43,650	3,875	8.9	6,125	4,625	20,275
1981	45,575	5,150	11.3	5,675	4,875	20,450
1982	45,000	6,000	13.3	5,275	4,475	19,775

TABLE V-16. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1976-1982 (cont.)

(Average of 12 monthly figures)

County of group of counties	Civilian labor force[a]	Unemployment[a]		Wage and salary workers[b]		
		Number	Rate[c]	Government[d]	Manufacturing	Other[e]
Gratiot						
1976	18,250	3,125	17.1	1,775	3,225	6,000
1977	18,025	2,750	15.3	1,750	3,225	6,175
1978	17,300	2,200	12.7	1,725	3,175	6,175
1979	16,400	1,675	10.2	2,000	2,850	6,175
1980	16,500	2,250	13.6	2,200	2,475	6,125
1981	16,650	2,025	12.2	2,000	2,825	5,975
1982	16,575	2,400	14.5	1,900	2,725	5,750
Hillsdale						
1976	20,625	1,875	9.1	2,275	4,200	4,475
1977	20,125	1,600	8.0	2,375	4,225	4,275
1978	20,450	1,100	5.4	2,150	4,725	4,500
1979	21,000	1,600	7.6	2,200	4,525	4,775
1980	20,475	2,350	11.5	2,375	3,550	5,000
1981	21,025	2,025	9.6	2,200	3,825	5,050
1982	21,050	3,000	14.3	2,100	3,400	4,975
Houghton, Keewenaw						
1976	13,700	1,925	14.1	3,525	825	4,800
1977	14,325	1,900	13.3	3,950	825	5,000
1978	15,625	1,750	11.2	4,200	825	5,950
1979	15,350	1,525	9.9	4,425	800	5,700
1980	15,600	1,825	11.7	4,650	850	5,650
1981	15,875	2,000	12.6	4,475	800	5,575
1982	15,700	2,375	15.1	4,350	650	5,375
Huron						
1976	13,525	1,975	14.6	1,675	1,900	4,125
1977	13,150	1,850	14.1	1,650	1,850	4,325
1978	13,925	1,550	11.1	1,675	2,800	4,350
1979	13,925	1,300	9.3	1,850	2,475	4,500
1980	14,175	2,325	16.4	2,000	2,200	4,625
1981	14,000	2,275	16.3	2,025	1,800	4,750
1982	13,775	2,400	17.4	1,900	1,625	4,675
Ingham - see Clinton, Eaton, Ingham, Ionia						
Ionia - see Clinton, Eaton, Ingham, Ionia						
Iosco - see Alcona, Iosoco						
Iron						
1976	6,250	800	12.8	1,050	575	1,700
1977	6,175	650	10.5	1,075	575	1,725
1978	6,025	575	9.5	975	675	1,800
1979	6,050	550	9.1	1,050	625	1,750
1980	6,075	675	11.1	1,175	575	1,675
1981	6,600	1,050	15.9	1,150	650	1,650
1982	6,500	1,000	15.4	1,050	675	1,625

TABLE V-16. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1976-1982 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment: Number[a]	Unemployment: Rate[c]	Wage and salary workers[b]: Government[d]	Manufacturing	Others[e]
Isabella						
1976	23,025	1,725	7.5	6,350	1,050	6,775
1977	25,275	1,775	7.0	6,575	1,150	6,950
1978	25,725	1,475	5.7	6,475	1,275	7,450
1979	26,225	1,700	6.5	6,650	1,250	7,525
1980	26,700	2,175	8.1	6,650	1,125	7,725
1981	28,350	2,125	7.5	6,950	1,000	8,350
1982	29,125	2,450	8.4	6,825	1,025	8,550
Jackson						
1976	65,000	6,500	10.0	8,600	14,700	26,700
1977	65,500	5,400	8.2	8,600	15,600	27,800
1978	65,700	3,800	5.8	8,400	16,400	29,000
1979	68,300	4,900	7.2	8,700	16,700	29,500
1980	67,200	7,600	11.3	9,000	14,500	28,900
1981	66,900	7,700	11.5	8,400	14,200	28,200
1982	66,100	10,800	16.3	8,000	12,000	27,000
Kalamazoo, Van Buren						
1976	124,200	9,500	7.6	19,900	32,700	46,900
1977	126,700	8,400	6.6	19,900	33,800	49,600
1978	128,300	7,400	5.8	19,400	34,600	52,900
1979	134,200	7,600	5.7	20,200	36,000	55,000
1980	135,500	11,300	8.3	20,500	32,900	56,400
1981	138,400	12,000	8.7	19,900	33,000	56,700
1982	137,000	15,100	11.0	19,400	31,200	54,500
Kalkaska - see Grand Traverse, Kalkaska, Leelanau						
Kent, Ottawa						
1976	269,800	20,800	7.7	29,000	77,100	121,800
1977	278,500	17,600	6.3	30,300	83,800	126,600
1978	294,600	14,600	5.0	30,100	90,500	138,800
1979	309,400	16,600	5.4	31,300	96,000	143,800
1980	311,200	25,900	8.3	32,600	89,000	144,500
1981	321,500	29,100	9.1	30,600	90,100	147,200
1982	325,800	38,500	11.8	29,600	85,000	146,700
Keweenaw - see Houghton, Keweenaw						
Lake						
1976	2,600	250	9.6	425	75	450
1977	2,725	250	9.2	450	75	450
1978	2,500	200	8.0	400	75	450
1979	2,725	325	11.9	500	50	475
1980	2,950	425	14.4	525	50	475
1981	3,075	450	14.6	500	50	525
1982	3,150	475	15.1	550	50	500
Lapeer - see Lapeer, Livingston, Macomb, Oakland, St. Clair, Wayne						
Leelanau - see Grand Traverse, Kalkaska, Leelanau						

TABLE V-16. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1976-1982 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Others[e]
Lenawee						
1976	36,850	4,025	10.9	4,225	11,425	10,525
1977	37,975	3,650	9.6	4,275	12,025	11,150
1978	37,600	2,450	6.5	4,325	12,450	11,650
1979	39,100	3,125	8.0	4,625	12,450	12,000
1980	38,375	5,550	14.5	4,900	10,300	11,700
1981	38,450	5,350	13.9	4,800	10,325	11,425
1982	38,850	7,025	18.1	4,650	9,475	11,200
Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne[f]						
1976	1,910.8	171.9	9.0	251.1	545.2	839.0
1977	1,977.5	155.2	7.8	257.2	583.1	888.8
1978	2,013.1	132.3	6.6	255.6	608.9	935.2
1979	2,052.0	160.8	7.8	255.7	580.5	955.8
1980	2,015.2	263.1	13.1	250.9	491.4	934.2
1981	2,006.6	261.8	13.0	239.8	470.5	927.3
1982	1,985.0	316.4	15.9	229.7	419.5	905.0
Luce						
1976	3,375	775	23.0	1,225	225	625
1977	4,100	825	20.1	1,850	200	700
1978	3,275	725	22.1	1,250	175	650
1979	3,125	350	11.2	1,325	225	700
1980	3,050	400	13.1	1,350	125	700
1981	3,000	575	19.2	1,150	100	700
1982	2,850	500	17.5	1,050	75	725
Mackinac						
1976	5,950	625	10.5	900	200	1,625
1977	6,400	800	12.5	950	175	1,800
1978	6,450	750	11.6	900	125	2,000
1979	6,875	1,100	16.0	900	175	1,975
1980	6,900	1,075	15.6	975	175	1,950
1981	7,425	1,450	19.5	900	175	2,100
1982	7,550	1,675	22.2	900	150	2,025
Macomb - see Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne						
Manistee						
1976	9,675	1,450	15.0	1,200	2,600	2,450
1977	9,825	1,250	12.7	1,225	2,750	2,625
1978	9,875	1,100	11.1	1,225	2,900	2,700
1979	9,875	925	9.4	1,400	2,825	2,775
1980	9,900	1,275	12.9	1,525	2,525	2,725
1981	9,925	1,575	15.9	1,400	2,300	2,700
1982	9,400	1,800	19.1	1,325	1,750	2,700

TABLE V-16. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1976-1982 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[e]	Unemployment[a]		Wage and salary workers[b]		
		Number	Rate[c]	Government[a]	Manufacturing	Others[e]
Marquette						
1976	32,275	2,725	8.4	7,450	1,150	18,050
1977	31,550	2,750	8.7	7,825	925	16,550
1978	34,300	2,500	7.3	8,000	950	19,750
1979	30,775	2,825	9.2	7,900	975	16,675
1980	30,675	4,050	13.2	8,100	875	15,750
1981	30,325	3,675	12.1	7,725	850	15,575
1982	31,050	6,975	22.5	7,325	775	13,700
Mason						
1976	11,550	1,125	9.7	1,450	2,400	3,500
1977	12,150	1,150	9.5	1,500	2,475	3,800
1978	12,200	925	7.6	1,475	2,650	3,925
1979	12,700	1,350	10.6	1,575	2,675	4,000
1980	12,800	1,650	12.9	1,700	2,425	4,025
1981	12,525	1,725	13.8	1,575	2,350	3,825
1982	12,300	2,350	19.1	1,575	1,875	3,625
Mecosta						
1976	13,175	1,200	9.1	4,075	1,600	2,825
1977	13,950	1,150	8.2	4,325	1,675	2,925
1978	14,150	950	6.7	4,200	1,700	3,225
1979	14,050	1,025	7.3	4,450	1,650	3,150
1980	14,850	1,350	9.1	4,875	1,600	3,250
1981	14,700	1,425	9.7	4,575	1,500	3,200
1982	14,175	1,675	11.8	4,425	1,275	3,025
Menominee						
1976	10,175	725	7.1	1,400	2,875	2,425
1977	10,325	700	6.8	1,425	2,925	2,475
1978	10,750	775	7.2	1,475	2,975	2,850
1979	11,150	775	7.0	1,625	2,850	3,050
1980	10,900	975	8.9	1,775	2,625	2,900
1981	11,225	1,000	8.9	1,675	2,850	2,850
1982	11,275	1,725	15.3	1,625	2,525	2,700
Midland, Gladwin						
1976	35,025	3,625	10.3	3,900	13,925	12,100
1977	36,850	3,225	8.8	4,100	13,600	14,550
1978	37,000	2,925	7.9	3,875	13,400	15,550
1979	37,300	2,850	7.6	4,175	13,100	15,825
1980	37,425	4,125	11.0	4,400	12,675	15,125
1981	37,950	4,150	10.9	4,100	12,325	15,775
1982	38,375	5,150	13.4	3,725	11,650	15,975

TABLE V-16. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1976-1982 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Government[d]	Manufacturing	Others[e]
Missaukee, Wexford						
1976	12,875	2,375	18.4	1,800	2,650	3,800
1977	14,125	2,175	15.4	1,825	3,050	4,475
1978	13,750	1,725	12.5	1,825	3,425	4,700
1979	14,250	1,500	10.5	1,950	3,550	4,750
1980	14,550	2,250	15.5	2,150	2,900	4,925
1981	14,850	2,225	15.0	2,000	2,850	5,125
1982	15,550	2,750	17.7	1,975	2,700	5,325
Monroe[g]						
1976	50,300	3,575	7.1			
1977	51,350	3,525	6.9			
1978	52,450	3,200	6.1			
1979	63,250	5,950	9.4			
1980	62,375	7,150	11.5			
1981	62,800	7,025	11.2			
1982	63,825	9,300	14.6			
Montcalm						
1976	18,300	3,425	18.7	2,275	4,100	5,025
1977	18,850	3,050	16.2	2,325	4,500	5,350
1978	18,975	2,625	13.8	2,250	5,025	5,550
1979	19,325	1,875	9.7	2,500	5,550	5,675
1980	20,325	2,875	14.1	2,600	5,375	5,800
1981	20,850	3,100	14.9	2,350	5,700	5,750
1982	20,425	4,025	19.7	2,300	4,900	5,475
Montmorency						
1976	2,700	300	11.1	375	600	525
1977	2,800	275	9.8	375	675	600
1978	3,100	275	8.9	400	625	700
1979	3,200	450	14.1	350	675	675
1980	2,800	675	24.1	400	325	700
1981	2,525	575	22.8	350	275	675
1982	2,325	550	23.7	325	200	650
Muskegon, Oceana						
1976	73,500	7,400	10.1	10,300	21,800	25,900
1977	74,200	6,800	9.2	10,500	22,100	26,600
1978	74,200	6,300	8.5	9,900	22,000	28,200
1979	76,800	6,700	8.7	10,500	22,500	29,100
1980	78,400	10,400	13.3	10,900	20,300	29,100
1981	77,200	10,600	13.7	10,200	19,900	28,300
1982	78,900	14,000	17.7	9,700	18,600	28,300

TABLE V-16. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1976-1982 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment Number[a]	Unemployment Rate[c]	Wage and salary workers[b] Government[d]	Wage and salary workers[b] Manufacturing	Wage and salary workers[b] Others[e]
Newaygo						
1976	12,825	1,475	11.5	1,700	1,875	2,500
1977	12,850	1,500	11.7	1,725	1,800	2,525
1978	12,825	1,325	10.3	1,625	1,950	2,675
1979	12,625	1,350	10.7	1,725	1,800	2,725
1980	13,475	2,050	15.2	1,850	1,700	2,875
1981	14,075	2,350	16.7	1,650	1,725	3,000
1982	14,475	2,525	17.4	1,525	1,750	3,125
Oakland - see Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne						
Oceana - see Muskegon, Oceana						
Ogemaw						
1976	6,900	775	10.9	775	825	1,725
1977	7,025	850	12.1	725	825	1,775
1978	7,575	850	11.2	800	950	1,975
1979	7,775	800	10.3	725	975	2,150
1980	7,450	1,050	14.1	775	725	2,100
1981	7,475	1,000	13.4	750	750	2,075
1982	7,375	1,275	17.3	675	600	2,000
Ontonagon						
1976	3,650	825	22.6	750	375	2,275
1977	3,400	675	19.9	750	425	2,050
1978	3,200	550	17.2	825	425	2,050
1979	3,150	400	12.7	900	475	1,975
1980	3,400	425	12.5	950	550	2,050
1981	3,650	400	11.0	900	800	2,300
1982	3,875	925	23.9	875	650	2,075
Osceola						
1976	7,350	800	10.9	1,175	2,050	1,075
1977	7,175	800	11.1	1,200	1,850	1,150
1978	7,150	575	8.0	1,200	1,950	1,125
1979	7,350	675	9.2	1,425	1,850	1,175
1980	8,250	1,075	13.0	1,625	2,000	1,250
1981	8,550	1,375	16.1	1,350	1,950	1,425
1982	8,550	1,375	16.1	1,350	1,950	1,425
Oscoda						
1976	2,550	425	16.7	350	325	425
1977	2,475	400	16.2	325	325	400
1978	2,350	375	16.0	325	275	400
1979	2,350	350	14.9	400	225	450
1980	2,325	425	18.3	450	150	400
1981	2,350	475	20.2	425	100	450
1982	2,425	475	19.6	375	75	550

TABLE V-16. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1976-1982 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment[a]		Wage and salary workers[b]		
		Number	Rate[c]	Government[d]	Manufacturing	Others[e]
Otsego						
1976	6,675	650	9.7	1,000	850	2,450
1977	7,025	625	8.9	1,050	925	2,675
1978	8,225	600	7.3	1,050	1,000	3,450
1979	9,275	650	7.0	1,200	1,175	3,750
1980	9,225	800	8.7	1,250	950	3,850
1981	9,575	925	9.7	1,100	1,075	3,850
1982	8,475	1,150	13.6	1,075	850	3,200
Ottawa - see Kent, Ottawa						
Presque Isle						
1976	4,325	450	10.4	850	200	1,950
1977	4,425	475	10.7	825	225	2,025
1978	4,500	500	11.1	850	175	2,150
1979	4,450	625	14.0	1,000	125	1,975
1980	4,725	900	19.0	1,050	175	1,975
1981	5,025	975	19.4	950	150	2,150
1982	4,975	1,225	24.6	875	200	1,900
Roscommon						
1976	5,400	775	14.4	975	550	1,675
1977	5,500	675	12.3	1,000	475	1,850
1978	5,450	625	11.5	1,150	475	1,775
1979	5,675	675	11.9	1,325	450	1,850
1980	5,925	875	14.8	1,400	375	1,850
1981	6,100	925	15.2	1,300	350	1,950
1982	6,200	1,125	18.1	1,275	225	1,975
Saginaw						
1976	95,700	8,600	9.0	11,200	32,300	38,800
1977	97,200	6,700	6.9	11,100	34,400	40,500
1978	99,300	5,600	5.6	11,100	36,600	42,400
1979	102,800	7,800	7.6	11,600	36,200	42,700
1980	102,500	14,600	14.2	11,900	28,600	44,000
1981	101,100	12,200	12.1	11,300	29,300	43,200
1982	99,000	16,900	17.1	11,200	24,200	41,500
St. Clair - see Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne						
St. Jospeh						
1976	22,175	2,050	9.2	2,950	8,550	5,475
1977	23,200	1,850	8.0	3,025	9,100	6,000
1978	24,125	1,725	7.2	2,925	9,875	6,450
1979	25,250	2,650	10.5	3,375	9,300	6,575
1980	25,700	2,950	11.5	3,525	9,150	6,950
1981	26,000	2,550	9.8	3,250	9,625	6,825
1982	25,850	3,300	12.8	3,100	9,225	6,475

TABLE V-14. MICHIGAN AND U.S. UNEMPLOYMENT RATES, DATA BASED ON A HOUSEHOLD SAMPLE, BY MONTH: 1972-1982

Year	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1972	7.9	8.0	8.2	8.0	7.7	8.0	8.2	6.4	6.6	5.0	5.4	4.8
1973	7.1	7.8	6.8	5.5	5.2	5.7	6.2	5.3	4.3	4.7	5.2	5.9
1974	5.8	7.3	8.4	7.2	6.7	7.0	7.5	7.0	7.1	6.6	8.5	9.9
1975	13.7	14.5	14.9	13.6	12.3	14.2	13.1	11.7	11.1	10.0	9.8	10.8
1976	10.3	10.7	10.6	10.0	9.3	9.9	9.6	9.3	8.4	7.5	8.4	8.3
1977	8.9	9.8	9.7	7.3	7.4	8.4	8.8	9.2	7.5	6.5	7.7	7.0
1978	8.1	7.2	7.2	6.6	6.6	7.0	7.3	8.0	5.8	5.5	6.6	6.7
1979	8.0	8.2	8.0	8.6	7.2	7.2	7.7	7.5	7.2	7.2	7.9	8.5
1980	10.3	11.3	11.1	12.4	14.1	14.1	14.2	12.6	12.0	12.3	12.5	12.2
1981	13.8	14.3	13.1	12.2	11.4	11.1	12.0	11.0	10.7	11.6	12.0	14.4
1982	16.0	16.1	17.0	15.5	14.3	14.3	14.7	14.5	14.5	14.9	16.4	17.2
						United States						
1972	6.5	6.4	6.1	5.5	5.1	6.2	5.9	5.5	5.4	5.1	4.9	4.8
1973	5.5	5.6	5.2	4.8	4.4	5.4	5.0	4.7	4.7	4.2	4.6	4.6
1974	5.7	5.8	5.3	4.8	4.6	5.8	5.7	5.3	5.7	5.5	6.2	6.7
1975	9.0	9.1	9.1	8.6	8.3	9.1	8.7	8.2	8.1	7.8	7.8	7.8
1976	8.8	8.7	8.1	7.4	6.8	8.0	7.8	7.6	7.4	7.2	7.4	7.4
1977	8.3	8.5	7.9	6.9	6.4	7.5	7.0	6.8	6.6	6.4	6.5	6.0
1978	7.1	6.9	6.6	5.8	5.5	6.2	6.3	5.9	5.8	5.4	5.6	5.7
1979	6.4	6.4	6.1	5.5	5.2	6.0	5.9	5.9	5.7	5.6	5.6	5.7
1980	6.9	6.8	6.6	6.7	7.1	7.8	7.9	7.6	7.2	7.1	7.1	6.9
1981	8.2	8.0	7.7	7.0	7.1	7.7	7.3	7.2	7.3	7.5	7.9	8.3
1982	9.4	9.6	9.5	9.2	9.1	9.8	9.8	9.6	9.7	9.9	10.4	10.5

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, special release.

NOTE: Figures show unemployment as a percentage of civilian labor force and are not seasonally adjusted.

TABLE V-16. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1976-1982 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment		Wage and salary workers[b]		
		Number[a]	Rate[c]	Govern-ment[d]	Manu-facturing	Others[e]
Sanilac						
1976	14,675	1,350	9.2	1,925	2,925	2,900
1977	15,625	1,375	8.8	1,900	3,525	3,075
1978	15,525	1,350	8.7	1,850	3,625	3,225
1979	15,600	1,850	11.9	2,025	3,325	3,275
1980	16,075	2,900	18.0	2,200	2,775	3,400
1981	16,425	3,000	18.3	1,975	2,875	3,400
1982	16,500	3,325	20.2	1,950	2,650	3,450
Schoolcraft						
1976	3,425	425	12.4	550	325	1,275
1977	3,575	450	12.6	575	375	1,300
1978	3,725	475	12.8	675	350	1,350
1979	3,825	550	14.4	775	350	1,275
1980	3,775	525	13.9	775	350	1,275
1981	3,825	675	17.6	725	325	1,250
1982	4,000	850	21.3	725	350	1,200
Shiawassee - see Genesee, Shiawassee						
Tuscola						
1976	23,000	2,525	11.0	3,550	2,525	4,675
1977	24,025	2,275	9.9	3,525	2,875	4,975
1978	24,450	1,975	8.0	3,525	2,950	5,400
1979	25,325	2,250	8.9	3,850	3,000	5,400
1980	25,475	4,250	16.7	4,150	2,175	5,325
1981	24,600	3,650	14.8	3,700	2,050	5,325
1982	23,775	3,975	16.7	3,450	1,850	5,075
Van Buren - see Kalamazoo, Van Buren						
Washtenaw						
1976	125,600	10,300	8.2	41,400	36,800	41,200
1977	130,100	8,500	6.5	41,700	40,800	44,300
1978	136,100	7,400	5.4	41,700	44,000	49,000
1979	145,000	8,400	5.8	43,300	46,800	51,700
1980	144,400	11,700	8.1	45,500	40,800	53,200
1981	142,500	11,100	7.8	44,800	36,100	55,200
1982	140,800	14,000	9.9	44,100	31,900	54,500
Wayne - see Livingston, Lapeer, Macomb, Oakland, St. Clair, Wayne						
Wexford - see Missaukee, Wexford						
Upper Peninsula						
1976	134,200	15,900	11.8	28,400	15,000	52,300
1977	135,600	15,700	11.6	28,700	15,200	5[illegible],100
1978	138,300	14,500	10.5	28,800	15,400	56,300
1979	136,500	14,300	10.5	29,900	15,000	53,500
1980	137,500	16,800	12.2	31,300	14,200	52,900
1981	142,500	19,000	13.3	29,500	14,400	54,200
1982	143,100	27,000	18.9	28,400	12,700	50,300

TABLE V-16. CIVILIAN LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT IN MICHIGAN COUNTIES, BY PLACE OF RESIDENCE, AND WAGE AND SALARY WORKERS IN MICHIGAN COUNTIES, BY PLACE OF WORK: 1976-1982 (cont.)

(Average of 12 monthly figures)

County or group of counties	Civilian labor force[a]	Unemployment[a]		Wage and salary workers[b]		
		Number	Rate[c]	Government[d]	Manufacturing	Other[e]
Michigan[h]						
1976	3,994.0	373.0	9.4	593.7	1,058.9	1,598.8
1977	4,117.0	336.0	8.2	596.8	1,128.4	1,717.3
1978	4,198.0	289.0	6.9	611.4	1,179.6	1,818.4
1979	4,313.0	335.0	7.8	621.0	1,160.1	1,855.9
1980	4,290.0	534.0	12.4	627.8	998.9	1,816.1
1981	4,309.4	529.3	12.3	598.4	979.0	1,786.9
1982	4,275.4	660.8	15.5	579.3	874.1	1,735.9

SOURCE: Michigan Employment Security Commission, special release.

a. Labor force includes persons involved in labor disputes. Employment and unemployment figures are on the basis of place of residence; wage and salary figures by place of work.

b. By place of work as opposed to place of residence.

c. Unemployment as a percentage of civilian labor force. Civilian labor force data are developed on the basis of questions asked at a sample of households, whereas the number of nonfarm wage and salary jobs is estimated by querying selected employers. The difference between the two stems largely from nonfarm self-employment (lawyers, dentists, physicians, and other professionals in private practice; domestic workers; "mom and pop" grocery stores, restaurants, and motels; and so forth), agricultural employment (both owners and their employees), workers involved in labor disputes who otherwise would be employed, multiple jobholding on the part of some employed persons, and sampling differences. Also, a worker might be employed in a factory or office in one state, and counted there in the employer survey, but live in another state, and be counted there in the household survey.

d. Federal, state and local. Includes public school employees and faculty and others employed full and part time at publicly owned universities.

e. Construction, transportation, communication, public utilities, wholesale trade, retail trade, finance, insurance, real estate, services, and mining.

f. Totals in thousands.

g. Monroe is part of the Toledo, Ohio, labor market area. Separate data for place of work are not compiled

h. All 83 counties, including Monroe, totals are in thousands.

n.a.: not available

TABLE V-17. CIVILIAN NONFARM WAGE AND SALARY JOBS IN MICHIGAN, DATA BASED ON AN EMPLOYER SURVEY, BY INDUSTRY: 1970-1982

(Averages of 12 monthly estimates, in thousands of jobs)

Industry	1970	1971	1972	1973
Manufacturing industries	1,081.1	1,059.2	1,097.4	1,178.8
Durable goods industries	863.0	879.5	879.5	953.1
Lumber and wood products	13.8	14.1	15.2	16.1
Furniture and fixtures	20.7	19.6	20.8	22.5
Metal industries	231.6	227.4	234.6	252.5
Primary metal products	89.3	86.8	87.6	95.6
Fabricated metal products	142.3	140.6	147.0	156.9
Machinery (nonelectrical)	163.5	137.3	140.3	155.6
Electrical machinery	42.5	40.6	42.3	47.1
Transportation equipment	350.8	368.1	384.3	416.0
Motor vehicles and equipment	335.3	353.6	369.6	401.0
Other	15.5	14.5	14.7	15.0
Other durable goods	40.1	40.0	42.0	43.3
Nondurable goods industries	218.1	212.1	217.9	225.7
Food and kindred products	54.6	53.4	52.3	51.7
Textile mill products and apparel	22.4	23.6	24.9	27.3
Paper and allied products	28.9	26.8	26.5	26.9
Printing, publishing, and allied industries	34.6	34.2	36.7	36.9
Chemicals and petroleum refining and related industries	47.5	45.0	44.7	45.6
Other nondurable goods	30.1	29.1	32.8	37.3
Private nonmanufacturing industries[a]	1,411.3	1,426.4	1,494.7	1,571.1
Contract construction	118.5	120.5	127.5	131.4
Transportation, communication, and public utilities	150.4	148.2	148.0	153.6
Wholesale trade	144.8	144.8	146.0	150.6
Retail trade	458.3	460.7	478.9	503.3
Finance, real estate, and insurance	119.7	121.0	127.7	130.3
Selected services	407.8	420.1	454.6	489.0
Mining	11.8	11.1	12.0	12.9
Government	506.7	509.5	526.9	534.4
Federal	57.7	54.9	55.3	55.0
State	116.0	117.8	122.5	123.9
Local	333.0	336.8	349.1	355.5
TOTAL	2,999.1	2,995.1	3,119.0	3,284.3

TABLE V-17. CIVILIAN NONFARM WAGE AND SALARY JOBS IN MICHIGAN, DATA BASED ON AN EMPLOYER SURVEY, BY INDUSTRY: 1970-1982 (cont.)

(Averages of 12 monthly estimates, in thousands of jobs)

1974	1975	1976	1977	1978	1979	1980	1981	1982
1,114.0	983.7	1,061.7	1,128.4	1,179.6	1,160.1	998.9	979.0	874.1
897.2	778.2	845.4	905.9	952.8	935.1	795.0	778.1	680.7
15.5	12.8	14.1	14.4	14.4	14.1	11.6	10.5	9.5
21.9	18.6	19.6	20.0	21.5	23.0	23.0	23.0	21.5
235.5	199.9	223.5	237.3	247.2	238.8	185.3	182.5	150.8
93.9	79.5	86.2	91.6	91.7	88.0	67.3	65.0	48.8
141.6	120.4	137.3	145.7	155.5	150.8	118.0	117.5	102.0
158.1	136.6	138.0	150.6	159.8	167.2	158.4	154.8	131.8
45.4	38.2	39.6	40.9	42.7	41.9	34.9	33.0	29.7
377.6	332.8	370.5	400.1	423.7	405.6	340.2	334.9	303.2
366.1	321.2	357.7	386.5	409.6	392.7	326.3	319.4	287.0
11.5	11.6	12.8	13.6	14.1	12.9	13.9	15.5	16.2
43.2	39.3	40.1	42.6	43.5	44.5	41.6	39.4	34.2
216.8	205.5	216.3	222.5	226.8	225.0	203.9	200.9	193.4
51.8	51.2	51.3	51.9	52.3	52.1	48.8	46.9	46.8
24.7	22.2	25.9	27.3	27.7	25.8	19.2	19.3	17.3
26.3	23.5	24.6	24.4	23.7	23.8	21.6	21.7	20.9
35.5	34.6	33.7	32.3	33.6	34.1	33.2	33.2	31.8
44.4	45.9	48.1	49.7	48.7	47.8	47.5	46.6	45.5
34.1	27.8	32.7	36.9	40.8	41.4	33.6	33.2	31.1
1,601.1	1,569.8	1,626.8	1,717.3	1,818.4	1,855.9	1,816.1	1,786.9	1,735.9
125.8	106.3	110.0	122.8	138.8	139.5	116.8	106.8	90.0
153.2	144.8	145.6	150.8	155.9	160.6	152.2	147.9	141.5
153.5	146.9	148.8	151.8	164.2	170.4	161.5	157.9	149.9
510.9	509.6	531.1	557.1	584.9	590.9	572.1	556.8	539.5
134.2	134.0	136.9	142.2	147.4	154.5	156.5	155.0	151.7
510.1	514.4	541.2	580.5	613.9	626.8	644.5	649.6	652.7
13.4	13.8	13.2	12.1	13.3	13.2	12.5	12.9	10.6
562.6	583.1	594.6	596.8	611.4	621.0	627.8	598.4	579.3
56.3	56.1	55.5	54.7	54.6	56.7	58.2	55.9	57.4
127.5	132.6	135.1	136.9	143.6	147.7	152.3	147.8	144.1
378.8	394.4	404.0	405.2	413.2	416.6	417.3	394.7	377.8
3,277.7	3,136.6	3,283.1	3,442.5	3,609.4	3,637.0	3,442.8	3,364.3	3,189.3

SOURCE: Michigan Employment Security Commission, special release.

a. Excludes domestic workers and agricultural employment.

TABLE V-18. CIVILIAN WAGE AND SALARY EMPLOYMENT IN MAJOR MICHIGAN LABOR MARKETS, DATA BASED ON EMPLOYER SURVEY, LABOR MARKET AREA, BY INDUSTRY: 1982

(Averages of 12 monthly estimates, in thousands of jobs)

Industry	Ann Arbor	Battle Creek	Bay City	Benton Harbor	Detroit
Manufacturing industries	31.9	18.0	8.4	19.1	419.5
Durable goods industries	27.9	9.0	6.0	14.6	347.5
Lumber and wood products	0	.1	.1	.2	1.3
Furniture and fixtures	(D)	(D)	(D)	(D)	1.1
Metal industries	1.8	2.5	.6	3.9	76.3
Primary metal products	.1	1.0	(D)	2.5	24.7
Fabricated metal products	1.7	1.5	(D)	1.4	51.6
Machinery (nonelectrical)	2.9	5.2	(D)	3.8	73.3
Electrical machinery	(D)	(D)	1.2	(D)	6.8
Transportation equipment	16.1	.3	2.6	1.6	175.4
Motor vehicles and equipment	(D)	(D)	(D)	(D)	167.4
Other	(D)	(D)	(D)	(D)	8.0
Other durable goods	7.1	.9	1.5	5.1	13.6
Nondurable goods industries	4.0	9.0	2.4	4.5	71.[illegible]
Food and kindred products	.4	6.7	.5	.8	16.9
Textile mill products and apparel	(D)	(D)	(D)	(D)	11.4
Paper and allied products	.3	1.2	(D)	.8	3.2
Printing, publishing, and allied industries	2.1	.6	.2	1.5	14.4
Chemicals and petroleum refining and related industries	(D)	.2	(D)	.2	14.3
Other nondurable goods	1.2	.3	1.7	1.2	11.5
Private nonmanufacturing industries[a]	54.5	29.8	18.9	28.4	905.0
Contract construction	1.9	1.5	.7	1.9	39.7
Transportation, communication, and public utilities	3.2	2.2	1.6	2.0	74.5
Wholesale trade	3.1	1.4	1.9	2.2	82.7
Retail trade	17.0	8.6	6.6	8.6	267.1
Finance, real estate, and insurance	3.9	4.1	1.3	1.9	87.8
Selected services	25.4[b]	12.0[b]	6.8[b]	11.8[b]	352.1
Mining	(D)	(D)	(D)	(D)	1.1
Government	44.1	11.9	4.9	7.7	229.7
Federal	2.3	4.2	.3	.5	31.1
State	30.9	.6	.3	.6	31.0
Local	10.9	7.1	4.3	6.6	167.6
TOTAL	130.5	59.7	32.2	55.2	1,554.2

TABLE V-18. CIVILIAN WAGE AND SALARY EMPLOYMENT IN MAJOR MICHIGAN LABOR MARKETS, DATA BASED ON EMPLOYER SURVEY, LABOR MARKET AREA, BY INDUSTRY: 1982

(Averages of 12 monthly estimates, in thousands of jobs)

Flint	Grand Rapids	Jackson	Kalamazoo	Lansing	Muskegon	Saginaw	Upper Peninsula
61.9	85.0	12.0	31.2	37.2	18.6	24.2	12.7
58.8	60.8	9.5	14.1	32.9	15.5	21.7	8.0
.1	1.1	(D)	.2	.2	.1	.1	2.4
(D)	15.1	(D)	(D)	.2	1.1	.1	.6
9.1	17.6	3.1	5.5	3.5	3.7	7.2	1.0
(D)	4.2	.6	1.5	(D)	2.7	(D)	.7
(D)	13.4	2.5	4.0	(D)	1.0	(D)	.3
1.5	12.0	2.3	2.7	3.6	6.7	3.0	1.9
1.6	4.0	.8	.2	.1	(D)	(D)	(D)
45.7	3.5	2.6	2.8	24.4	(D)	10.7	1.0
(D)	1.9	(D)	(D)	(D)	(D)	(D)	(D)
(D)	1.6	(D)	(D)	(D)	(D)	(D)	(D)
.8	7.5	.7	2.7	.9	3.9	.6	1.1
3.1	24.2	2.5	17.1	4.3	3.1	2.5	4.7
.8	6.7	.4	1.7	1.0	.4	1.4	.8
.2	2.3	.1	(D)	(D)	(D)	(D)	(D)
.3	1.7	(D)	5.0	(D)	(D)	(D)	2.9
.9	3.9	.4	1.4	1.2	.4	.4	.8
(D)	5.2	(D)	7.2	(D)	.8	.5	.1
.9	4.1	1.6	1.8	2.1	1.5	.2	.1
83.1	146.7	27.0	54.5	83.4	28.3	41.5	50.3
3.2	9.4	1.1	3.1	3.7	1.9	1.8	3.8
6.2	11.2	5.0	3.9	5.2	2.9	4.6	4.7
9.9	16.7	1.6	3.6	7.0	1.9	2.5	2.8
28.7	47.5	8.3	18.2	28.0	9.1	14.6	17.0
6.2	10.9	1.6	4.0	9.4	1.5	3.9	3.2
28.9[b]	50.6[b]	9.4[b]	21.7[b]	30.1[b]	10.9	14.1[b]	15.5
(D)	.4	(D)	(D)	(D)	.1	(D)	3.3
27.3	29.6	8.0	19.4	63.4	9.7	11.2	28.4
1.5	2.0	.4	1.1	2.8	.5	1.3	3.2
2.3	2.7	2.0	7.2	39.1	1.2	1.5	8.4
23.5	24.9	5.6	11.1	21.5	8.0	8.4	16.8
172.3	261.3	47.0	105.1	184.0	56.6	76.9	91.4

SOURCE: Michigan Employment Security Commission, special release.

NOTE: Labor Market Areas are the same as Standard Metropolitan Statistical Areas, except for Benton Harbor (Berrien County), Port Huron (St. Clair County), and Upper Peninsula (15 counties) which are not SMSAs.

a. Excludes domestic workers and agricultural employment.

b. Includes mining.

(D): Withheld to avoid disclosing data for individual companies.

TABLE V-19. UNEMPLOYMENT RATE IN MICHIGAN, BY COUNTY: CENSUS 1970 AND 1980

County	Rate 1970	Rate 1980	County	Rate 1970	Rate 1980
Alcona	12.2	18.1	Lake	10.5	17.1
Alger	13.3	12.3	Lapeer	5.3	11.9
Allegan	5.7	8.5	Leelanau	9.1	9.9
Alpena	7.9	15.2	Lenawee	7.1	10.6
Antrim	6.9	14.1	Livingston	4.7	9.7
Arenac	9.6	18.0	Luce	9.4	11.7
Baraga	9.8	13.8	Mackinac	[illegible]	24.3
Barry	5.1	8.8	Macomb	4.8	9.9
Bay	6.7	13.4	Manistee	7.5	15.2
Benzie	10.0	14.4	Marquette	7.6	10.1
Berrien	5.2	10.6	Mason	6.1	11.7
Branch	6.7	13.3	Mecosta	9.6	10.4
Calhoun	5.3	9.0	Menominee	4.6	10.2
Cass	4.2	11.3	Midland	4.3	9.2
Charlevoix	10.2	14.9	Missaukee	9.1	15.0
Cheybogan	13.1	20.4	Monroe	4.9	11.8
Chippewa	12.5	15.7	Montcalm	8.2	9.9
Clare	8.2	17.6	Montmorency	10.6	21.9
Clinton	4.2	6.9	Muskegon	6.7	10.9
Crawford	11.4	11.9	Newaygo	8.5	10.7
Delta	7.9	12.6	Oakland	5.3	7.4
Dickinson	5.6	7.8	Oceana	8.2	14.2
Eaton	3.9	7.2	Ogemaw	10.4	16.8
Emmet	8.4	13.6	Ontonagon	7.1	11.7
Genesee	5.3	13.7	Osceola	8.7	13.4
Gladwin	7.1	16.7	Oscoda	12.9	16.1
Gogebic	6.5	12.9	Otsego	12.2	10.4
Grand Traverse	6.3	8.5	Ottawa	5.3	5.9
Gratiot	6.9	10.6	Presque Isle	8.9	16.7
Hillsdale	6.4	11.3	Roscommon	11.2	17.3
Houghton	11.6	13.1	Saginaw	4.9	13.6
Huron	7.1	11.0	St. Clair	7.3	13.1
Ingham	5.5	7.7	St. Joseph	4.8	[illegible]
Ionia	[illegible]	10.6	Sanilac	8.3	13.7
Iosco	8.1	18.0	Schoolcraft	11.6	17.0
Iron	13.5	12.4	Shiawassee	5.9	11.5
Isabella	7.2	9.5	Tuscola	5.6	13.9
Jackson	5.6	10.2	Van Buren	5.8	10.9
Kalamazoo	4.7	6.7	Washtenaw	5.0	6.8
Kalkaska	15.4	16.8	Wayne	6.0	14.3
Kent	5.8	6.9	Wexford	7.2	14.6
Keweenaw	12.7	16.8	MICHIGAN	5.9	11.0

SOURCE: Bureau of the Census, special release.

TABLE V-20. TRANSACTIONS AFFECTING THE BALANCE IN THE MICHIGAN UNEMPLOYMENT COMPENSATION FUND, FISCAL YEARS ENDED 30 JUNE: 1949-1981

(In thousands of dollars)

Fiscal year	Employers' contributions	Interest earned and credited	Miscellaneous transactions	Cumulative net income to fund[a]	Net benefit payments	Cumulative benefit payments[a]	Balance in fund
1949	79,584.3	6,184.9	---	728,224.2	50,056.5	431,296.8	296,927.4
1950	68,839.0	6,363.7	---	803,426.9	82,853.5	514,150.3	289,276.5
1951	71,272.1	6,817.7	---	881,516.6	27,519.6	541,670.0	339,846.7
1952	77,834.3	7,667.0	---	967,018.0	62,955.8	604,625.7	362,392.2
1953	83,921.3	8,735.1	---	1,059,674.4	39,846.4	644,472.1	415,202.3
1954	81,546.8	10,313.8	---	1,151,535.0	96,097.9	740,570.1	410,965.0
1955	61,695.5	8,652.9	---	1,221,883.3	114,805.2	855,375.3	366,508.1
1956	61,471.7	8,231.1	---	1,291,586.2	105,559.3	960,934.6	330,651.6
1957	96,133.5	7,620.4	1,847.1[b]	1,397,187.2	134,977.2	1,095,911.8	301,275.5
1958	113,509.3	7,030.4	3,755.6[b]	1,521,482.5	269,470.4	1,365,382.2	156,100.3
1959	121,143.9	2,546.9	114,704.5[b]	1,759,877.8	193,522.4	1,558,904.6	200,973.2
1960	154,066.2	2,830.3	---	1,916,774.3	135,611.5	1,694,516.1	222,258.2
1961	149,374.3	2,820.1	---	2,068,968.7	224,542.4	1,919,058.5	149,910.2
1962	159,179.2	1,458.1	---	2,229,606.0	134,753.3	2,053,811.8	175,794.1
1963	164,334.9	3,034.0	---	2,396,974.9	100,079.4	2,153,891.2	243,083.7
1964	187,927.1	6,664.6	---	2,591,566.6	81,581.0	2,235,472.3	356,094.3
1965	181,154.7	11,304.2	8,131.5[c]	2,775,893.9	64,666.0	2,300,138.3	475,755.7
1966	178,441.2	15,941.7	26,100.0[c]	2,944,176.8	61,990.0	2,362,128.3	582,048.6
1967	161,241.0	20,120.3	28,800.0[c]	3,097,230.1	110,923.2	2,473,051.5	624,178.7
1968	127,967.4	22,199.5	84,860.6[c]	3,162,536.5	118,523.9	2,591,575.4	570,961.1
1969	125,969.1	25,026.4	---	3,313,532.0	109,506.0	2,701,081.3	612,450.7
1970	125,788.5	28,382.5	---	3,467,703.0	178,076.2	2,879,157.6	588,545.5
1971	128,120.4	24,797.4	---	3,620,620.8	359,659.3[d]	3,238,816.9	381,804.0
1972	232,574.7	15,199.6	---	3,868,395.4	284,871.9[d]	3,523,688.8	344,706.6
1973	338,939.6	19,086.9	---	4,226,421.8	214,737.6[d]	3,738,426.4	487,995.4

TABLE V-21. WORK STOPPAGES IN MICHIGAN AND THE UNITED STATES, NUMBER, WORKERS INVOLVED, AND MAN-DAYS IDLE: 1942-1980

	Michigan				United States			
			Man-days idle during year				Man-days idle during year	
Year	Number of stoppages	Workers involved (000)	Number (000)	Percent[a]	Number of stoppages	Workers involved (000)	Number (000)	Percent[a]
1942	261	114.7	258.6	--	2,968	840.0	4,180.0	.05
1943	413	274.5	592.3	--	3,752	1,980.0	13,500.0	.15
1944	562	568.7	1,836.9	--	4,956	2,120.0	8,720.0	.09
1945	478	521.1	5,960.0	--	4,750	3,470.0	38,000.0	.47
1946	311	248.0	10,600.0	--	4,985	4,600.0	116,000.0	1.43
1947	188	180.0	2,550.0	--	3,693	2,170.0	34,600.0	.41
1948	196	262.0	2,450.0	--	3,419	1,960.0	34,100.0	.37
1949	139	240.0	2,120.0	--	3,606	3,030.0	50,500.0	.59
1950	322	345.0	7,360.0	--	4,843	2,410.0	38,800.0	.44
1951	315	215.0	1,600.0	--	4,737	2,220.0	22,900.0	.23
1952	326	311.0	3,500.0	--	5,117	3,540.0	59,100.0	.57
1953	331	297.0	2,450.0	--	5,091	2,400.0	28,300.0	.26
1954	204	171.0	1,060.0	--	3,468	1,530.0	22,600.0	.21
1955	327	292.0	1,740.0	--	4,320	2,650.0	28,200.0	.26
1956	210	98.8	1,190.0	--	3,825	1,900.0	33,100.0	.29
1957	208	138.0	1,280.0	.24	3,673	1,390.0	16,500.0	.14
1958	275	437.0	3,400.0	.72	3,694	2,060.0	23,900.0	.22
1959	172	83.5	2,680.0	.53	3,708	1,880.0	69,000.0	.61
1960	145	65.3	722.0	.14	3,333	1,320.0	19,100.0	.17
1961	180	239.0	1,820.0	.38	3,367	1,450.0	16,300.0	.14
1962	196	81.4	1,440.0	.28	3,614	1,230.0	18,600.0	.16
1963	135	36.8	611.0	.12	3,362	941.0	16,100.0	.13
1964	197	249.0	4,540.0	.83	3,655	1,640.0	22,900.0	.18
1965	229	82.0	1,560.0	.27	3,963	1,550.0	23,300.0	.18
1966	275	143.0	1,820.0	.30	4,405	1,960.0	25,400.0	.19
1967	283	284.0	5,180.0	.81	4,595	2,870.0	42,100.0	.30
1968	354	261.1	7,752.7	1.22	5,045	2,649.0	49,018.0	.32
1969	305	90.2	1,614.5	.22	5,700	2,481.0	42,869.0	.28
1970	313	323.6	11,143.5	1.75	5,716	3,305.2	66,413.8	.37
1971	282	126.3	2,942.8	.46	5,138	3,279.6	47,589.1	.32
1972	167	54.2	851.3	.13	5,010	1,713.6	27,066.4	.17
1973	262	210.7	1,788.8	.22	5,353	2,250.7	27,948.4	.14
1974	346	121.7	3,130.8	.38	6,074	2,777.7	47,990.9	.24
1975	189	35.0	934.6	.12	5,031	1,745.6	31,237.0	.16
1976	260	209.0	3,151.3	.38	5,648	2,420.0	37,858.9	.19
1977	327	97.9	1,717.1	.20	5,506	2,040.1	35,821.8	.17
1978	300	93.7	1,756.9	.20	4,230	1,622.6	36,912.5	.17
1979	349	90.7	1,592.5	.17	4,827	1,727.1	34,752.7	.15
1980	286	77.7	1,779.6	.20	3,885	1,366.3	33,288.5	.14

SOURCE: Bureau of Labor Statistics, Analysis of Work Stoppages, 1980, Bulletin 2120 (Washington, D.C.: 1982), Table 21 and similar documents for previous years.

a. Percentage of estimated total working time. Data for individual states not published prior to 1957.

TABLE V-22. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLO[illegible] INSURANCE PROGRAM, BY INDUSTRY, FIRST QUARTER: 1982

Industry	Average employment[a]	Payrolls (000)	e
Agriculture, forestry, and fisheries	12,693	$ 34,808	$ 210.
Farms and agricultural services	12,551	34,542	211.70
Forestry and fisheries	142	266	144.21
Mining	12,090	74,215	472.19
Metal and coal mining	4,953	33,861	525.88
Crude petroleum and natural gas	5,027	29,722	454.81
Nonmetallic mining and quarrying	2,110	10,631	387.59
Construction	81,106	464,861	440.89
Building construction-general contractors	19,330	106,615	424.27
General contractors other than building	14,270	106,567	574.45
Construction-special trade contractors	47,506	251,689	407.53
Manufacturing	888,977	5,628,813	487.06
Foods and kindred products, and tobacco manufactures	45,435	224,293	379.74
Textile mill products	1,670	10,484	482.90
Apparel and other products	14,978	83,987	431.34
Lumber and wood products (except furniture)	9,623	33,144	264.94
Furniture and fixtures	22,103	128,123	445.90
Paper and allied products	20,134	112,603	430.21
Printing, publishing, and allied products	32,587	144,978	342.23
Chemicals and allied products	42,136	269,163	491.38
Petroleum refining and related industries	2,729	18,211	513.33
Rubber and misc. plastic products	28,773	130,546	349.01
Leather and leather products	3,005	9,918	253.90
Stone, clay, and glass products	15,212	86,683	438.33
Primary metal industries	56,486	373,609	508.78
Fabricated metal products	97,004	539,018	427.43
Machinery (except electrical)	142,419	891,999	481.78
Electrical machinery, equipment, and supplies	30,240	168,562	428.78
Transportation equipment	303,988	2,309,389	584.38
Professional, scientific, and controlling instruments	13,234	63,446	368.78
Miscellaneous manufacturing industries	7,221	30,656	326.57
Transportation, communication, and utilities	130,417	747,225	440.73
Local railways and bus lines	3,897	10,985	216.84
Motor freight, transportation, and warehousing	35,403	202,526	440.05

TABLE V-22. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY INDUSTRY, FIRST QUARTER: 1982 (cont.)

Industry	Average employment[a]	Payrolls (000)	Average weekly earnings
Transportation (cont.)			
Water transportation	752	3,561	364.24
Transportation, other	11,125	54,090	374.00
Communication	42,551	238,267	430.74
Electric, gas, and sanitary services	36,689	237,796	498.57
Wholesale and retail trade	677,800	2,069,261	234.84
Wholesale trade	153,175	849,347	426.53
Retail building materials, hardware, and farm equipment	18,937	63,459	257.77
Retail general merchandise	82,762	221,288	205.68
Retail food	80,589	231,284	220.76
Retail automobile and gasoline service stations	57,052	202,253	272.70
Retail apparel and accessories	32,704	67,423	158.59
Retail furniture, home furnishings, and equipment	18,953	57,948	235.19
Eating and drinking places	171,859	227,512	101.83
Retail miscellaneous stores	61,769	148,746	185.24
Finance, insurance, and real estate	148,225	602,861	312.86
Credit agencies and banks	76,557	299,316	300.75
Insurance carriers	33,646	159,035	363.59
Insurance agents, brokers, & service	15,359	70,973	355.46
Real estate	20,770	62,237	230.50
Combined real estate, insurance, holding companies, and others	1,893	11,300	459.17
Services	585,538	2,099,987	275.88
Hotels, rooming houses, & camps	22,153	40,212	139.63
Personal services	35,766	71,008	152.72
Business service, miscellaneous	91,554	341,669	287.07
Automobile repair, services, & garages	18,996	64,436	260.93
Miscellaneous repair services	9,437	36,486	297.40
Motion pictures	4,102	10,189	191.07
Amusement and recreation services, other	22,631	51,679	175.66
Medical and other health services	249,970	958,516	294.96
Legal services	17,972	108,712	465.31
Educational services	16,353	53,069	249.63
Social services	29,975	72,052	184.90
Museums, art galleries and zoos	1,112	2,936	203.10
Nonprofit membership organizations	23,278	62,763	207.40
Private households	2,769	4,411	122.53
Miscellaneous services	39,470	221,849	432.36
TOTAL	2,536,846	11,722,031	355.44

SOURCE: Michigan Employment Security Commission, special release.

a. Average of 12 monthly figures.

TABLE V-23. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY COUNTY: FIRST QUARTER: 1981 AND 1982

County	1981			1982		
	Average employment[a]	Annual payrolls	Average weekly earnings	Average employment[a]	Annual payrolls	Average weekly earnings
Alcona	734	1,726,395	180.93	700	1,797,099	197.48
Alger	1,099	3,627,152	253.88	1,053	3,508,081	256.27
Allegan	12,687	42,453,874	257.40	13,060	45,788,369	275.58
Alpena	7,594	27,366,709	277.21	6,620	24,914,066	289.50
Antrim	2,595	7,815,554	231.67	2,305	7,220,923	240.98
Arenac	1,737	4,325,263	191.54	1,801	4,429,390	189.19
Baraga	1,373	3,879,708	217.36	1,327	3,696,645	214.29
Barry	5,568	20,869,554	288.32	5,158	20,867,029	311.20
Bay	26,629	110,194,278	318.32	25,558	108,329,521	326.04
Benzie	1,728	4,435,797	197.46	1,536	4,222,711	211.47
Berrien	46,039	180,743,235	301.99	44,777	187,041,121	321.32
Branch	8,048	27,065,690	258.69	7,080	26,128,911	283.89
Calhoun	40,118	168,508,032	323.10	39,175	172,933,688	339.57
Cass	6,263	21,279,443	261.36	5,627	20,051,099	274.11
Charlevoix	4,563	14,023,352	236.41	4,205	13,307,614	243.44
Cheboygan	3,442	10,619,861	237.34	3,161	10,364,609	252.22
Chippewa	3,653	9,994,477	210.46	3,732	10,627,003	219.04
Clare	2,891	7,446,485	198.13	3,000	8,180,539	209.76
Clinton	5,177	18,117,290	269.20	5,153	18,221,823	272.01
Crawford	1,578	3,549,048	173.01	1,689	4,417,259	201.18
Delta	8,003	29,211,859	280.78	8,192	31,778,651	298.40
Dickinson	6,754	24,040,870	273.81	6,551	23,365,252	274.36
Eaton	8,467	28,961,000	263.11	8,264	28,898,700	269.00
Emmet	6,202	18,752,011	232.58	6,105	19,212,577	242.08
Genesee	145,598	785,498,972	415.00	128,074	700,812,997	420.92

TABLE V-23. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY COUNTY: FIRST QUARTER: 1981 AND 1982 (cont.)

County	1981			1982		
	Average employment[a]	Annual payrolls	Average weekly earnings	Average employment[a]	Annual payrolls	Average weekly earnings
Gladwin	1,884	5,210,893	212.76	1,932	5,571,555	221.83
Gogebic	4,062	8,287,237	156.94	3,988	8,711,955	168.04
Grand Traverse	19,060	60,499,892	244.17	18,649	62,400,788	257.39
Gratiot	9,382	30,585,263	250.77	9,111	32,088,036	270.92
Hillsdale	7,346	25,262,467	264.53	7,744	27,095,498	269.15
Houghton	5,834	16,235,251	214.07	5,696	15,849,155	214.04
Huron	5,868	18,628,087	244.19	5,714	18,551,399	249.74
Ingham	96,825	425,909,096	338.37	94,830	437,175,215	354.62
Ionia	8,100	25,920,468	246.16	7,359	24,609,767	257.24
Iosco	3,330	9,235,949	213.35	3,101	8,892,521	220.59
Iron	2,079	5,047,357	186.75	2,023	5,370,420	204.21
Isabella	8,781	26,149,543	229.07	10,251	34,284,672	257.27
Jackson	39,910	165,204,749	318.42	38,796	172,087,523	341.21
Kalamazoo	75,518	314,426,086	320.28	72,597	322,216,890	341.42
Kalkaska	1,894	7,849,916	318.82	1,859	8,180,023	338.48
Kent	177,795	701,882,746	303.67	177,173	738,482,779	320.63
Keweenaw	93	191,552	158.44	66	132,861	154.85
Lake	422	976,731	178.04	447	974,080	167.63
Lapeer	7,053	21,822,473	238.01	6,653	21,628,376	250.07
Leelanau	1,240	2,602,830	161.47	1,434	3,019,198	161.96
Lenawee	20,548	76,741,937	287.29	19,193	76,563,361	306.86
Livingston	12,263	39,096,710	245.24	11,935	40,017,471	257.92
Luce	670	1,457,769	167.37	575	1,247,090	166.83
Mackinac	1,077	2,683,120	191.64	1,074	2,705,120	193.75
Macomb	164,693	762,751,188	356.26	155,362	731,801,718	362.33

TABLE V-20. TRANSACTIONS AFFECTING THE BALANCE IN THE MICHIGAN UNEMPLOYMENT COMPENSATION FUND, FISCAL YEARS ENDED 30 JUNE: 1949-1981 (cont.)

(In thousands of dollars)

Fiscal year	Employers' contributions	Interest earned and credited	Miscellaneous transactions	Cumulative net income to fund[a]	Net benefit payments[a]	Cumulative benefit payments[a]	Balance in fund
1974	313,218.6	29,504.9	---	4,539,640.4	330,066.5[d]	4,068,492.9	500,652.4
1975	299,102.7	18,383.2	81,000.0[e]	4,938,126.3	813,219.0[d]	4,881,711.9	85,919.3
1976	368,355.1	15,426.0	490,000.0[e]	5,796,496.8	727,131.5[d]	5,608,843.4	217,158.3
1977	558,208.6	0	53,000.0[e]	6,357,432.1	523,723.5[d]	6,132,566.9	304,643.4
1978	680,179.3	248.8[f]	---	6,698,039.8	439,511.8[d]	6,672,933.5	598,833.0
1979	730,733.7	6,753.1	---	7,435,526.5	498,512.0[d]	7,221,718.8	837,807.7
1980	635,368.9	3,529.2	540,000.0[e]	8,074,737.9	1,254,019.1[d]	8,425,464.5	138,686.7
1981	620,525.8	0	475,000.0[e]	8,694,950.4	1,003,276.6[d]	9,428,741.1	230,936.0

SOURCE: Michigan Employment Security Commission, Annual Report, 1949 through 1981 (Lansing: annually), Appendix, p. 31 (1981 data).

a. 1 January 1937 - 30 September 1981.
b. Includes funds credited to the Michigan account in the Unemployment Trust Fund on 1 July of indicated year by the Secretary of the Treasury in accordance with the provisions of Title IX, Section 903 of the Social Security Act, as amended by Public Law 567, 83rd Cong., 2nd sess. (Reed bill) and $113 million advanced in September 1958 under provisions of Title XII, Section 1201, of the Social Security Act. Repayment of $15,381,202.36 was made through 30 June 1967 under automatic repayment provisions of the Federal Unemployment Tax Act.
c. Final repayments were made during 1968 by direct transfer from the fund of the outstanding balance on the 1958 loan of $113 million in the amount of $71,187,297.64 and on 1958-1959 TUC costs in the amount of $13,673,334.98. Installment repayments were also made annually by direct transfer from the fund on the loan balance in 1964, 1965, and 1966, and on TUC costs in 1965 and 1966.
d. Includes state share of extended benefits.
e. Advance from federal unemployment account.
f. Adjustment for prior years.

TABLE V-23. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY COUNTY: FIRST QUARTER: 1981 AND 1982 (cont.)

County	1981			1982		
	Average employment[a]	Annual payrolls	Average weekly earnings	Average employment[a]	Annual payrolls	Average weekly earnings
Shiawassee	10,018	33,172,553	254.71	9,805	33,445,061	262.39
St. Clair	25,014	95,756,593	294.47	25,779	109,019,948	325.31
St. Joseph	14,071	51,426,923	281.14	14,292	52,638,975	283.32
Tuscola	6,608	21,776,985	253.50	6,365	22,112,586	267.24
Van Buren	10,264	33,453,065	250.71	9,711	34,473,358	273.07
Washtenaw	92,908	437,476,357	362.21	86,017	407,637,751	364.54
Wayne	775,715	3,864,532,017	383.22	721,165	3,750,998,347	400.10
Wexford	6,302	20,342,449	248.30	6,164	20,680,213	258.08
State-wide	45,896	187,605,422	314.43	46,514	206,615,527	341.69
TOTAL	2,659,208	11,806,487,233	341.53	2,536,846	11,722,031,013	355.44

SOURCE: Michigan Employment Security Commission, special release.

a. Average of 12 monthly figures.

TABLE V-24. ESTIMATES OF WORKERS' COMPENSATION PAYMENTS IN MICHIGAN, BY TYPE OF INSURANCE: 1971-1981

(In thousands of dollars)

Year	Insurance losses paid by private insurance carriers	State fund disbursements	Self-insurance payments
1971	119,700	3,191	76,000
1972	140,677	3,648	93,745
1973	158,141	5,697	105,620
1974	180,536	9,279	120,400
1975	193,410	10,006	128,800
1976	222,754	11,238	151,000
1977	252,569	12,273	168,000
1978	270,700	13,907	205,850
1979	247,838	16,680	152,055
1980	256,197	19,472	175,047
1981	300,725	21,927	199,340

SOURCE: 1979-1978, Michigan Department of Labor Worman's Compensation Division, special release; 1979-1981 Fund Administration Division, special release.

TABLE V-25. NUMBER OF MINERS, MINERS' WIDOWS, AND MINERS' DEPENDENTS RECEIVING BLACK LUNG BENEFITS, AND MONTHLY AMOUNT, MICHIGAN AND THE UNITED STATES: DECEMBER 1975-1981

Year	Number				Monthly amount ($1,000)	
	Miners	Widows	Dependents	Total	Miners	Widows
			Michigan			
1975	1,740	2,139	1,775	5,654	497	439
1976	1,655	2,210	1,602	5,467	491	472
1977	1,531	2,273	1,506	5,310	485	521
1978	1,399	2,279	1,456	5,134	470	553
1979	1,295	2,276	1,292	4,863	473	595
1980	1,210	2,304	1,195	4,709	483	663
1981	1,105	2,329	1,076	4,510	462	702
			United States			
1975	165,405	139,407	177,499	482,311	46,600	28,900
1976	158,087	142,495	169,073	469,655	46,500	30,800
1977	148,720	144,543	164,136	457,399	47,100	33,400
1978	138,648	145,829	155,493	439,970	46,800	35,500
1979	129,558	146,527	142,863	418,948	47,800	38,700
1980	120,235	146,503	132,639	399,477	48,800	42,600
1981	111,249	146,173	119,083	376,505	47,300	44,400

SOURCE: Social Security Administration, Social Security Bulletin, Table Q-37.

VI. INCOME AND COST OF LIVING

The following comments are excerpts from a mimeographed description of the personal income statistics issued by the Bureau of Economic Analysis, an agency within the U.S. Department of Commerce.

> BEA's personal income estimates are unique in that they provide its users with an economic base profile, extending over a span of more than forty years and covering more than three-thousand sub-areas, which can be combined into any multicounty geographic area needed. That is, it covers the Nation county-by-county; it is prepared annually, and it is presented in substantial industrial detail.
>
> Because of its conceptual scope and its richness of component detail, personal income can be used to measure and trace the levels and types of income flows received or earned by individuals residing or working in a specific political subdivision or micro-economy. Thus, it provides a local area data base for economic decision-making and for the implementation of those Federal, State or local government programs requiring an analysis of economic activities in, or the economic well-being of the residents of, a particular area. Specific applications include its use as a measure of the size of the consumer market; as an indirect measure of the industrial market; as a measure of the quality of a market and the economic welfare of an area's residents; as an indicator of an area's economic health; as an analytical framework which can be used in assessing an area's economy and against which alternative developmental programs can be evaluated or as a basis for gauging the capacity of an area to support public service expenditures.
>
> Personal income is the sum of several hundred individually estimated component flows, both monetary and non-monetary, and it encompasses most forms of income flowing to persons including Federal, State and local governments, households, institutions, and foreign governments.
>
> Two of the most important characteristics of the county income estimates are that they are constructed from a wide variety of statistical information not necessarily designed for income estimation; (this information consists mainly of data obtained from business and government records showing disbursements to individuals) and the BEA national and State estimates of personal income are used as statistical "frames of reference." Thus State totals are allocated to the counties on the basis of the best available data. A detailed procedure of estimation is followed to maximize reliability and to obtain analytically useful information by county on income by type and by industry. This use of extensive

detail is the hallmark of a reliable measurement effort because it reflects, with reasonable reliability, the interindustry or intercomponent differentials at both the State and county levels, and it provides the detail needed to audit the sources and methods of estimation. This approach has an added virtue in that it gives us the opportunity to take maximum advantage of the benevolent "law" of offsetting error.

It should also be emphasized that while the BEA estimates of county personal income and employment incorporate a great deal of basic data which may be presumed, from their general characteristics, to be "reliable," it also uses other data of differing quality, scope and relevance. In order to bridge the gaps or deficiencies in the poorer quality statistical source materials available for county income estimation, resort must be made to assumptions and indirect procedures.

Reliance on indirect methods and procedures makes it impossible to specify error in formal probabilistic or statistical terms. The importance of this limitation is increased by two circumstances; (a) the extent of indirect methods varies considerably over the forty-year estimating span, and (b) the industry structures of States and counties are differentially sensitive to such methods.

Personal Income Defined

Personal income is the current income of residents of an area from all sources. It is measured after deduction of personal contributions to social security, government retirement, and other social insurance programs but before deduction of income and other personal taxes. It includes income received from business, Federal, State and local governments, households and institutions, and foreign governments. It consists of wages and salaries (in cash and in kind, including tips and bonuses as well as contractual compensation), various types of supplementary earnings termed other labor income (the largest item being employer contributions to private pension, health and welfare funds), the net incomes of owners of unincorporated businesses (farm and nonfarm with the latter including the incomes of independent professionals), net rental income, royalties, dividends, interest, and government and business transfer payments (consisting in general of disbursements to persons for which no services are rendered currently, such as unemployment benefits, social security payments, medicare benefits, retirement pay of governmental programs, and welfare and relief payments).

To measure personal income on a local area basis, criteria for allocating income to counties or SMSA's must be established. In the case of labor and entrepreneurial income, the criteria can be either the place-of-work of the income recipient or his place-of-residence. The difference between the two concepts is the net flow of commuters' earnings.

In BEA's local area income series, personal income is measured on a where-received (i.e., place-of-residence) basis; however, the bulk of the estimates of earnings[1] by broad industrial source are on a where-earned basis.

Earnings on a residence basis equals earnings on a place-of-work basis minus the earnings of persons who work in the given area but reside in another area, plus the earnings of persons who reside in the given area but work in another area.

Both measures of local area earnings are required. In the first construct, earnings, designated as "where-earned," are estimated by industry by place-of-work to provide a basis for the analysis of the industrial structure of a given area. In the second construct, designated as "where-received," earnings (where-earned) are adjusted to reflect place-of-residence which together with the other components of total personal income yields a useful basis for the analysis of consumer markets and purchasing power. When expressed on a per capita basis, the total personal income is an indicator of the economic well-being of the residents of a sub-area.

This adjustment to a place-of-residence is made to the all-industry earnings total for each county. A more precise method would be to convert the place-of-work earnings to a place-of-residence by computing adjustment factors for each major industry group, thus reflecting industrial differentials in commuting flows. There is, however, little likelihood that the industrial detail needed to carry out such a procedure will be forthcoming in the near future.

The distinction between place-of-work and residence cannot be applied to the other components of the income flow -- property income and transfer payments. In the case of property income an alternative criterion, resembling the place-of-work concept, is possible, i.e., the allocation of these incomes to the areas in which the businesses that generated them are located. However, conceptual and statistical difficulties that have not been satisfactorily resolved stand in the way of the application of this criterion. And even if these difficulties did not exist, it would

---

[1] Earnings are the sum of wages and salaries, other labor income, and self-employment income.

> not be advisable to apply the criterion to the property income component of personal income, since the latter cannot be transformed into a satisfactory measure of the contribution of capital to production, mainly because it excludes all components of profits other than dividends.

Readers of the Abstract who require additional detail of personal income for Michigan or its subdivisions, other than that published in this chapter are invited to contact the Bureau of Business Research, School of Business Administration, Wayne State University, which is a repository for these statistics.

Selected detail of transfer payments appears in Table VII-2. The personal income earnings components for industries were used as measures of the economic importance of government (Chapter X), agriculture (Chapter XII), construction (Chapter XIV), manufacturing (Chapter XV), trade (Chapters XX and XXI), finance, insurance, and real estate (Chapter XXI) and services (Chapter XXIII).

The poverty threshold is developed by the Bureau of the Census as a multiple of the income needed to purchase an "economy" diet, one that just meets minimum standards of nutrition and diversity. Government studies have shown that for households with three or more individuals, the multiple is three, that is, one-third of the budget goes for food. In two-person households, food absorbs 27 percent of the minimum adequate budget, and for single individuals the ratio is even smaller. Detroit area poverty data appear in Table VI-19.

Consumer price indexes are compiled by the Bureau of Labor Statistics. Essentially, these represent the change in the cost of purchasing a fixed market basket of goods and services. CPIs are calculated for a selection of cities in the country, including Detroit. The national index is produced separately on the basis of average prices of individual items nationally.

Cost of living comparisons may be made through family budget studies conducted by the Bureau of Labor Statistics (Tables VI-24 and VI-25). The moderate family budget allows for "the maintenance of health and social well-being, the nurture of children, and participation in community activities."

VI. INCOME AND COST OF LIVING

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TABLE VI-1. TOTAL AND PER CAPITA PERSONAL INCOME IN MICHIGAN AND THE UNITED STATES: 1929-1981

	Total income (millions of dollars)			Per capita income (dollars)		
Year	Michigan	United States	Percentage[a]	Michigan	United States	Percentage
1929	3,770	84,894	4.44	786	697	112.8
1930	3,165	76,173	4.16	655	619	105.8
1931	2,590	65,377	3.96	540	527	102.5
1932	1,888	50,050	3.77	395	401	98.5
1933	1,664	46,916	3.55	348	374	93.0
1934	2,173	53,648	4.05	453	425	106.6
1935	2,560	60,239	4.25	529	473	111.8
1936	3,017	68,405	4.41	617	534	115.5
1937	3,382	73,721	4.59	681	572	119.1
1938	2,874	67,918	4.23	568	523	108.6
1939	3,199	72,301	4.42	620	552	112.3
1940	3,586	77,739	4.61	675	589	114.6
1941	4,493	95,103	4.72	822	713	115.3
1942	5,780	121,496	4.76	1,041	902	115.4
1943	7,242	147,772	4.90	1,342	1,097	122.3
1944	7,529	158,959	4.74	1,379	1,186	116.3
1945	7,190	163,359	4.40	1,315	1,225	107.3
1946	7,743	175,411	4.41	1,318	1,247	105.7
1947	8,829	188,539	4.68	1,453	1,312	110.7
1948	9,550	207,582	4.60	1,537	1,421	108.2
1949	9,516	204,918	4.64	1,503	1,378	109.1
1950	10,811	225,684	4.79	1,687	1,492	113.1
1951	12,066	252,485	4.78	1,857	1,647	112.8
1952	12,908	268,983	4.80	1,941	1,728	112.3
1953	14,663	284,866	5.15	2,149	1,800	119.4
1954	14,257	286,953	4.97	2,018	1,781	113.3
1955	15,825	307,601	5.14	2,172	1,872	116.0
1956	16,472	329,933	4.99	2,206	1,972	111.9
1957	16,917	348,309	4.86	2,235	2,044	109.3
1958	16,602	358,913	4.65	2,165	2,061	105.0
1959	17,625	382,548	4.61	2,269	2,160	105.0
1960	18,328	398,843	4.60	2,339	2,216	105.6
1961	18,281	414,285	4.41	2,316	2,264	102.3
1962	19,560	440,023	4.45	2,466	2,369	104.1
1963	20,887	462,406	4.52	2,592	2,454	105.6
1964	22,904	495,188	4.63	2,798	2,592	107.9
1965	25,511	536,152	4.76	3,053	2,772	110.1
1966	27,844	582,630	4.78	3,271	2,980	109.8
1967	28,967	623,757	4.64	3,357	3,161	106.2
1968	32,010	683,561	4.68	3,681	3,430	107.3

TABLE VI-1. TOTAL AND PER CAPITA PERSONAL INCOME IN MICHIGAN AND THE UNITED STATES: 1929-1981 (cont.)

	Total income (millions of dollars)			Per capita income (dollars)		
Year	Michigan	United States	Percentage[a]	Michigan	United States	Percentage
1969	34,862	747,536	4.66	3,970	3,714	106.9
1970	35,975	803,922	4.47	4,044	3,954	102.5
1971	39,068	861,904	4.53	5,355	4,167	104.5
1972	43,282	944,852	4.58	4,796	4,515	106.2
1973	48,383	1,058,902	4.57	5,333	5,010	106.4
1974	51,739	1,162,203	4.45	5,680	5,448	104.3
1975	54,540	1,258,643	4.33	5,988	5,842	102.5
1976	61,324	1,385,201	4.43	6,726	6,367	105.6
1977	69,290	1,534,708	4.51	7,567	6,984	108.3
1978	77,776	1,726,732	4.50	8,452	7,775	108.7
1979	85,981	1,943,579	4.42	9,296	8,655	107.4
1980	91,650	2,153,593	4.26	9,876	9,480	104.2
1981	99,314	2,405,598	4.13	10,790	10,491	102.9

SOURCE: Bureau of Economic Analysis, Regional Economics Information System, as a percentage of the United States for 1969-1980 have been revised to reflect the 1980 comprehensive revision.

TABLE VI-2. TOTAL AND PER CAPITA DISPOSABLE PERSONAL INCOME IN MICHIGAN AND THE UNITED STATES: 1958-1981

	Total income (Millions of dollars)			Per capita income (dollars)		
Year	Michigan	United States	Percentage	Michigan	United States	Percenage
1958	14,747	315,401	4.7	1,923	1,820	105.7
1959	15,589	335,007	4.7	2,007	1,900	105.6
1960	16,081	348,724	4.6	2,053	1,938	105.9
1961	16,139	362,467	4.5	2,045	1,981	103.2
1962	17,096	383,446	4.5	2,155	2,065	104.4
1963	18,182	402,344	4.5	2,256	2,135	105.7
1964	20,202	436,805	4.6	2,468	2,286	108.0
1965	22,406	471,557	4.8	2,681	2,438	110.0
1966	24,280	508,621	4.8	2,852	2,602	109.6
1967	25,138	542,238	4.6	2,913	2,747	106.0
1968	27,245	587,398	4.6	3,133	2,947	106.3
1969	29,078	632,946	4.6	3,311	3,144	105.3
1970	30,451	689,190	4.4	3,423	3,382	101.2
1971	33,369	746,142	4.5	3,719	3,608	103.1
1972	36,253	804,849	4.5	4,017	3,846	104.4
1973	40,881	909,247	4.5	4,506	4,302	104.7
1974	43,937	993,076	4.4	4,823	4,655	103.6
1975	46,937	1,090,778	4.3	5,153	5,063	101.8
1976	51,956	1,189,607	4.4	5,699	5,468	104.2
1977	58,057	1,309,219	4.4	6,340	5,957	106.4
1978	64,964	1,468,922	4.4	7,060	6,614	106.7
1979	71,681	1,643,442	4.4	7,750	7,318	105.9
1980	77,471	1,817,702	4.3	8,348	8,002	104.3
1981	83,100	2,019,930	4.1	9,028	8,809	102.5

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE V-23. EMPLOYMENT, PAYROLLS, AND AVERAGE WEEKLY EARNINGS IN MICHIGAN ESTABLISHMENTS COVERED UNDER THE REGULAR STATE UNEMPLOYMENT INSURANCE PROGRAM, BY COUNTY: FIRST QUARTER: 1981 AND 1982 (cont.)

County	1981			1982		
	Average employment[a]	Annual payrolls	Average weekly earnings	Average employment[a]	Annual payrolls	Average weekly earnings
Manistee	4,501	17,685,425	302.25	4,076	16,523,998	311.84
Marquette	15,639	57,720,369	283.91	15,300	58,831,738	295.79
Mason	5,149	17,113,468	255.67	5,025	16,445,120	251.74
Mecosta	4,438	11,995,466	207.92	3,881	10,203,882	202.25
Menominee	5,433	16,499,162	233.60	5,134	15,467,470	231.75
Midland	24,427	123,789,125	389.82	25,157	141,357,656	432.23
Missaukee	744	1,885,165	194.91	840	2,293,262	201.01
Monroe	19,319	83,670,939	333.16	20,100	100,886,473	386.09
Montcalm	11,146	37,140,158	256.32	9,670	33,197,629	264.08
Montmorency	655	1,200,333	140.97	629	1,264,759	154.67
Muskegon	44,048	176,981,688	309.07	43,248	185,193,339	329.39
Newaygo	4,444	14,188,361	245.59	4,598	15,796,388	264.27
Oakland	356,057	1,602,515,742	346.21	350,337	1,649,622,487	362.21
Oceana	1,948	4,735,886	187.01	1,891	5,036,795	204.89
Ogemaw	2,453	6,761,978	212.05	2,299	6,531,796	218.55
Ontonagon	2,474	10,866,721	337.87	2,907	12,483,314	330.33
Osceola	3,017	10,137,336	258.47	2,919	10,294,610	271.29
Oscoda	424	906,627	164.48	515	1,006,451	150.33
Otsego	4,543	13,573,722	229.83	3,775	11,773,686	239.91
Ottawa	45,711	155,560,361	261.78	44,007	164,140,798	286.91
Presque Isle	1,806	5,976,209	254.55	1,727	5,650,505	251.68
Roscommon	1,937	4,008,000	159.17	1,892	3,847,619	156.43
Saginaw	70,761	334,778,214	363.93	62,991	293,360,938	358.25
Sanilac	5,790	17,795,111	236.42	5,390	17,738,266	253.15
Schoolcraft	1,281	4,294,024	257.85	1,261	4,687,075	285.92

TABLE VI-3. FUNCTIONAL COMPONENTS OF INCOME IN MICHIGAN AND THE UNITED STATES: 1976-1981[a]

(Dollar figures in thousands)

	1976	1977	1978	1979	1980	1981
Labor and proprietors' earnings, by place of work[b,c,d]						
Michigan	48,052,720	54,975,200	62,088,238	67,934,213	68,498,174	72,981,140
United States	1,053,893,000	1,170,847,000	1,321,521,000	1,477,121,000	1,592,947,000	1,748,817,000
Percentage[e]	4.6	4.7	4.7	4.6	4.3	4.2
Social insurance contributions						
Michigan	2,383,314	2,571,664	2,933,772	3,327,494	3,361,546	3,863,240
United States	55,149,000	60,809,000	69,459,000	80,769,000	88,316,000	104,439,000
Percentage[e]	4.3	4.2	4.2	4.1	3.8	3.7
Residence adjustment						
Michigan	284,718	326,075	374,545	429,607	441,443	471,425
United States[f]	-358,000	-402,000	-441,000	-426,000	-488,000	-484,000
Percentage[e]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Net labor and proprietors' earnings, by place of residence						
Michigan	45,954,124	52,729,611	59,529,011	65,036,326	65,578,071	69,589,325
United States	998,386,000	1,109,636,000	1,251,621,000	1,395,926,000	1,504,143,000	1,643,894,000
Percentage[e]	4.6	4.8	4.8	4.7	4.4	4.2
Dividends, interest, and rent[g]						
Michigan	7,239,620	8,128,397	9,375,364	10,827,587	12,629,299	15,480,229
United States	192,542,000	217,175,000	251,267,000	297,393,000	352,213,000	425,370,000
Percentage[e]	3.8	3.7	3.7	3.6	3.6	3.6

TABLE VI-3. FUNCTIONAL COMPONENTS OF INCOME IN MICHIGAN AND THE UNITED STATES: 1976-1981[a] (cont.)

(Dollar figures in thousands)

	1976	1977	1978	1979	1980	1981
			Transfer payments[h]			
Michigan	8,130,610	8,432,048	8,871,296	10,117,277	13,443,127	14,244,293
United States	194,273,000	207,897,000	223,844,000	250,260,000	297,237,000	336,334,000
Percentage[e]	4.2	4.1	4.0	4.0	4.5	4.2
			Personal income, by place of residence			
Michigan	61,324,354	69,290,056	77,775,671	85,981,190	91,650,497	99,313,847
United States	1,385,201,000	1,534,708,000	1,726,732,000	1,943,579,000	2,153,593,000	2,405,598,000
Percentage[e]	4.4	4.5	4.5	4.4	4.3	4.1

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Estimates for 1969-1981 have been revised to reflect the 1980 comprehensive NIPA revisions.

b. See Table VI-4 for details.

c. Consists of wage and salary disbursements, other labor income, and proprietors' income.

d. Includes the capital consumption adjustment for nonfarm proprietors.

e. Michigan as a percentage of United States.

f. Adjust for border workers: Income of U.S. residents working across U.S. borders less income of foreign residents working in the U.S.

g. See Table VI-5 for detail.

h. See Table VII-2. for detail.

n.a.: not applicable.

TABLE VI-4. ANALYSIS OF THE LABOR AND PROPRIETORS' EARNINGS COMPONENT OF PERSONAL INCOME, BY INDUSTRIAL SECTOR, IN MICHIGAN AND THE UNITED STATES: 1976-1981[a]

	Earnings, 1981		Percentage change	
Sector	Millions of dollars	Percentage	1976 to 1981	1980 to 1981
	Michigan			
Manufacturing	29,769	40.79	46	9
Nondurable goods	4,770	6.54	45	7
Durable goods	24,998	34.25	46	10
Services	11,745	16.09	76	9
Retail trade	6,396	8.76	39	4
Transportation and public utilities	4,179	5.73	57	6
Wholesale trade	3,897	5.34	59	6
Construction	3,042	4.17	46	- 2
Finance, insurance and real estate	2,964	4.06	65	4
Farm	727	1.00	46	- 2
Mining	401	0.55	54	15
Agricultural services, forestry, fisheries, and other[b]	170	0.23	65	6
State and local government[a]	8,220	11.26	51	2
Federal, civilian	1,233	1.69	42	4
Federal, military	240	.33	16	18
TOTAL	72,981	100.00	52	7
	United States			
Manufacturing	449,409	25.70	65	9
Nondurable goods	158,838	9.08	58	9
Durable goods	290,571	16.62	69	9
Services	316,702	18.11	83	13
Retail trade	164,985	9.43	52	8
Transportation and public utilities	135,538	7.75	73	10
Wholesale trade	120,070	6.87	72	10
Construction	97,963	5.60	60	4
Finance, insurance and real estate	102,114	5.84	79	10
Farm	34,252	1.96	33	1
Mining	35,274	2.02	123	24
Agricultural services, forestry, fisheries, and other[b]	7,375	0.42	75	12
State and local government[c]	191,293	10.94	54	8
Federal, civilian	66,240	3.79	46	7
Federal, military	27,602	1.58	50	16
TOTAL	1,748,817	100.00	66	10

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Estimates based on 1972 standard industrial classification.

b. Includes wages and salaries of U.S. residents working for international organizations in the U.S.

c. Includes publicly controlled institutions of education and other educational institutions.

TABLE VI-5. ANALYSIS OF THE DIVIDEND, INTEREST, AND RENT COMPONENT OF PERSONAL INCOME IN MICHIGAN AND THE UNITED STATES: 1976-1981[a]

(Dollar figures in thousands)

Year		Dividends	Interest		Rent		Total
			Monetary	Imputed[b]	Monetary	Imputed[c]	
1976	Michigan	1,333,395	3,365,342	1,749,200	232,674	559,009	7,239,620
	United States	36,514,000	88,412,000	44,111,000	12,846,000	10,659,000	192,542,000[e]
	Percentage[d]	3.7	3.8	4.0	1.8	5.2	3.8
1977	Michigan	1,474,699	3,871,121	2,030,423	323,292	428,862	8,128,397
	United States	39,562,000	101,770,000	51,027,000	16,706,000	8,110,000	217,175,000
	Percentage[d]	3.7	3.8	4.0	1.9	5.3	3.7
1978	Michigan	1,686,862	4,416,982	2,480,623	410,167	380,730	9,375,364
	United States	45,310,000	116,921,000	62,436,000	18,572,000	8,028,000	251,267,000
	Percentage[d]	3.7	3.8	4.0	2.2	4.7	3.7
1979	Michigan	1,857,877	5,404,696	2,846,726	415,682	302,606	10,827,587
	United States	50,757,000	145,408,000	73,319,000	20,657,000	7,252,000	297,393,000
	Percentage[d]	3.7	3.7	3.9	2.0	4.2	3.6
1980	Michigan	1,913,530	6,650,705	3,158,603	524,028	382,433	12,629,299
	United States	55,920,000	180,378,000	83,043,000	23,359,000	9,513,000	352,213,000
	Percentage[d]	3.4	3.7	3.8	2.2	4.0	3.6
1981	Michigan	2,138,884	8,766,499	3,643,092	518,702	413,052	15,480,229
	United States	62,510,000	236,915,000	92,067,000	23,957,000	9,921,000	425,370,000
	Percentage[d]	3.4	3.7	4.0	2.2	4.2	3.6

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Estimates for 1969-81 have been revised to reflect the 1981 comprehensive NIPA revisions.

b. Value of financial services (mostly "free" checking accounts) rendered persons by banks and other financial institutions without charge plus income withheld by life insurance companies and mutual financial intermediaries on the account of persons, such as the addition of income to policy holder reserves held by life insurance companies.

c. Gross rental income imputed to nonfarm residents of owner-occupied nonfarm dwelling units less the normal expenses incurred in home ownership; that is, the net rent that nonrenters save from owning the homes they live in.

d. Michigan as a percentage of United States.

e. Includes the capital consumption adjustment for rental income of persons.

TABLE VI-6. QUARTERLY PERSONAL INCOME IN MICHIGAN AND THE UNITED STATES, SEASONALLY ADJUSTED ANNUAL RATES: 1967-1982

(In millions of dollars)

Year and quarter	Michigan	United States	Year and quarter	Michigan	United States
1967			1968		
First	28,466	605,965	First	31,001	652,890
Second	28,747	613,279	Second	31,679	670,441
Third	29,594	625,139	Third	32,389	686,839
Fourth	29,376	635,696	Fourth	33,321	700,974
1969			1970		
First	34,985	726,965	First	36,475	786,609
Second	35,674	743,953	Second	37,552	807,993
Third	36,440	759,986	Third	37,791	816,677
Fourth	37,126	774,796	Fourth	36,813	821,614
1971			1972		
First	37,065	827,995	First	41,932	905,060
Second	37,552	807,993	Second	42,909	920,203
Third	39,355	857,893	Third	43,666	941,186
Fourth	40,345	874,406	Fourth	45,220	975,403
1973			1974		
First	47,108	1,004,828	First	51,300	1,107,391
Second	48,114	1,031,131	Second	52,539	1,137,933
Third	50,305	1,066,790	Third	54,858	1,171,724
Fourth	51,826	1,099,630	Fourth	55,277	1,189,836
1975			1976		
First	52,212	1,197,357	First	59,455	1,333,366
Second	53,565	1,230,670	Second	61,188	1,356,675
Third	55,455	1,267,216	Third	61,985	1,385,519
Fourth	57,093	1,298,542	Fourth	63,972	1,421,988
1977			1978		
First	65,821	1,471,359	First	74,167	1,638,945
Second	68,171	1,509,030	Second	76,272	1,696,816
Third	70,867	1,555,426	Third	78,960	1,756,065
Fourth	72,299	1,603,017	Fourth	81,704	1,815,102
1979			1980		
First	84,472	1,864,670	First	89,866	2,079,954
Second	85,200	1,908,752	Second	89,269	2,103,475
Third	86,652	1,974,249	Third	91,970	2,178,755
Fourth	89,601	2,026,645	Fourth	95,499	2,252,188
1981			1982		
First	96,864	2,321,266	First	100,549	2,498,639
Second	99,225	2,370,938	Second		
Third	101,012	2,447,592			
Fourth	100,154	2,482,596			

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-7. TOTAL PERSONAL INCOME IN MICHIGAN COUNTIES: 1973-1981

(In millions of dollars)

County	1973	1974	1975	1976	1977	1978	1979	1980	1981
Alcona	26.6	28.7	32.8	37.9	43.0	48.0	5[illegible].7	60.9	69.0
Alger	27.3	30.4	34.4	38.9	43.5	48.5	52.6	56.7	62.7
Allegan	290.1	316.2	336.6	375.8	430.5	500.4	565.9	606.2	672.1
Alpena	126.2	140.4	155.3	171.3	189.4	214.4	237.6	256.6	274.5
Antrim	53.3	61.0	67.0	74.0	86.1	98.6	111.3	123.4	134.4
Arenac	45.9	53.0	55.7	65.3	74.2	80.2	89.7	96.8	106.7
Baraga	28.7	31.4	35.7	39.8	43.1	49.6	54.7	59.2	64.0
Barry	169.4	180.8	197.1	219.0	246.0	280.6	317.1	342.7	366.9
Bay	552.0	612.0	650.1	736.2	837.6	912.4	999.5	1,075.5	1,189.6
Benzie	36.6	41.0	44.6	50.1	58.3	66.0	72.9	78.0	87.2
Berrien	857.3	932.0	965.2	1,032.9	1,160.5	1,282.5	1,379.0	1,457.6	1,593.6
Branch	168.3	176.8	197.7	218.4	253.7	286.7	321.2	328.0	354.7
Calhoun	735.6	782.3	860.7	955.6	1,043.9	1,154.7	1,273.3	1,352.8	1,466.2
Cass	217.1	223.4	238.6	272.8	300.5	345.1	390.6	419.1	449.4
Charlevoix	70.7	78.2	87.4	97.4	112.6	128.0	143.9	156.0	169.9
Cheboygan	67.2	74.1	83.8	93.7	105.7	118.7	134.4	147.9	158.8
Chippewa	122.1	134.8	151.2	165.7	164.8	158.3	169.5	186.4	211.7
Clare	64.3	73.7	84.1	96.0	112.5	126.6	142.9	152.6	169.8
Clinton	238.6	254.1	271.7	303.5	347.0	401.9	451.7	510.7	553.8
Crawford	24.1	27.3	35.3	39.1	43.8	48.0	50.6	57.7	64.7
Delta	142.0	161.7	176.6	200.8	216.2	235.4	261.6	288.5	322.1
Dickinson	106.5	123.5	136.4	152.0	170.8	192.7	215.7	231.7	246.7
Eaton	367.7	378.3	423.5	479.4	565.8	628.6	719.8	774.3	853.8
Emmet	88.1	98.6	108.5	121.4	136.2	153.7	174.3	193.4	211.3
Genesee	2,412.7	2,445.0	2,635.5	3,143.6	3,623.2	3,979.5	4,351.7	4,559.1	5,059.0

TABLE VI-7. TOTAL PERSONAL INCOME IN MICHIGAN COUNTIES: 1973-1981

(In millions of dollars)

County	1973	1974	1975	1976	1977	1978	1979	1980	1981
Sanilac	155.9	179.3	180.0	198.7	224.4	252.1	282.8	302.9	332.9
Schoolcraft	28.1	31.5	36.6	40.0	44.5	49.0	54.9	61.2	68.3
Shiawassee	317.6	347.0	372.9	412.4	468.8	534.1	597.8	628.6	675.7
Tuscola	233.9	272.2	272.0	307.4	352.1	390.1	441.0	476.7	510.0
Van Buren	255.9	284.1	297.3	329.2	372.0	425.7	469.5	512.7	564.8
Washtenaw	1,311.2	1,406.7	1,533.7	1,750.8	1,993.7	2,271.7	2,549.3	2,792.1	3,031.2
Wayne	15,085.4	15,851.2	16,133.2	17,881.9	19,723.6	21,790.2	23,559.7	24,935.3	26,251.8
Wexford	82.2	92.0	100.9	114.6	131.9	145.3	162.7	178.5	197.6
Michigan	48,382.8	51,739.2	54,539.6	61,324.4	69,290.7	77,776.5	85,982.1	91,653.1	99,016.6
United States	1,058,902	1,162,203	1,258,643	1,385,201	1,534,708	1,727,032	1,943,983	1,154,049	1,406,545

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-8. PER CAPITA PERSONAL INCOME IN MICHIGAN COUNTIES: 1973-1981

(In dollars)

County	1973	1974	1975	1976	1977	1978	1979	1980	1981
Manistee	3,552	4,022	4,510	4,937	5,621	6,231	6,858	7,522	8,369
Marquette	3,988	4,396	5,001	5,474	5,779	6,629	7,273	7,887	8,752
Mason	3,682	4,251	4,431	4,824	5,334	6,029	6,675	6,983	7,505
Mecosta	2,755	3,029	3,331	3,552	3,915	4,401	4,790	5,661	5,929
Menominee	3,633	4,149	4,409	4,876	5,319	6,041	6,709	7,310	8,060
Midland	5,151	5,830	6,169	6,969	7,701	8,452	9,306	9,744	10,750
Missaukee	3,471	3,614	3,908	4,180	4,421	4,980	5,350	5,834	6,309
Monroe	4,963	5,235	5,509	6,178	6,995	7,690	8,480	9,025	10,163
Montcalm	4,012	4,584	4,716	5,063	5,654	6,250	6,648	7,913	8,686
Montmorency	3,314	3,519	3,892	4,299	4,882	5,472	6,031	6,835	7,500
Muskegon	4,377	4,861	5,210	5,665	6,228	7,012	7,789	8,383	9,123
Newaygo	3,770	3,921	4,188	4,590	4,967	5,604	6,132	6,508	7,206
Oakland	6,921	7,298	7,695	8,667	9,891	11,127	12,268	12,992	14,126
Oceana	3,605	4,066	4,048	4,373	4,985	5,700	6,130	6,638	7,170
Ogemaw	3,180	3,550	3,800	4,261	4,744	4,971	5,573	6,012	6,756
Ontonagon	3,607	4,061	4,449	4,309	4,649	4,926	5,581	6,400	7,131
Osceola	3,566	3,895	4,086	4,055	4,510	4,965	5,526	6,227	6,873
Oscoda	2,870	3,217	3,517	3,924	4,197	4,303	4,623	4,815	5,183
Otsego	3,881	4,055	4,769	5,374	6,050	6,745	7,503	7,968	8,723
Ottawa	4,835	5,179	5,385	5,980	6,820	7,699	8,632	8,868	9,655
Presque Isle	3,280	3,718	4,093	4,400	4,866	5,413	5,912	6,667	7,646
Roscommon	3,367	3,697	4,094	4,519	4,995	5,474	5,983	6,815	7,514
Saginaw	5,158	5,413	5,735	6,685	7,555	8,305	9,101	9,561	10,485
St. Clair	4,601	4,907	5,215	5,823	6,545	7,330	7,896	8,462	9,481
St. Joseph	4,742	4,809	5,259	5,761	6,361	7,016	7,788	8,247	8,869

TABLE VI-8. PER CAPITA PERSONAL INCOME IN MICHIGAN COUNTIES: 1973-1981

(In dollars)

County	1973	1974	1975	1976	1977	1978	1979	1980	1981
Sanilac	4,109	4,634	4,591	5,006	5,637	6,255	6,984	7,423	8,237
Schoolcraft	3,324	3,792	4,306	4,572	5,036	5,490	6,321	7,188	8,230
Shiawassee	4,740	5,086	5,404	5,985	6,751	7,584	8,373	8,835	9,574
Tuscola	4,506	5,144	5,072	5,659	6,410	6,997	7,837	8,354	9,007
Van Buren	4,192	4,599	4,700	5,168	5,762	6,534	7,114	7,657	8,462
Washtenaw	5,313	5,485	6,110	6,895	7,745	8,745	9,698	10,532	11,462
Wayne	5,816	6,213	6,427	7,264	8,161	9,141	10,012	10,712	11,486
Wexford	3,741	4,136	4,405	4,933	5,538	5,983	6,553	7,087	7,768
Michigan	5,333	5,680	5,988	6,726	7,567	8,452	9,297	9,903	10,758
United States	5,010	5,448	5,842	6,367	6,984	7,776	8,657	9,483	10,495

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-9. PERCENTAGE CHANGE IN PER CAPITA PERSONAL INCOME, 1971-1981 AND 1980-1981, AND RANKING OF MICHIGAN COUNTIES ACCORDING TO PER CAPITA PERSONAL INCOME: 1981

County	Per capita personal income	Percent change 1971-1981	Percent change 1980-1981	County	Per capita personal income	Percent change 1971-1981	Percent change 1980-1981
Oakland	14,126	151.2	8.7	Alpena	8,450	159.7	6.4
Wayne	11,486	145.5	7.2	Manistee	8,369	156.4	11.3
Washtenaw	11,462	158.3	8.8	Delta	8,357	166.3	12.6
Macomb	11,430	143.9	4.4	Sanilac	8,237	144.3	11.0
Genesee	11,296	154.4	11.5	Antrim	8,232	168.9	8.0
Ingham	11,062	157.4	11.3	Schoolcraft	8,230	191.7	14.5
Kalamazoo	10,852	156.9	9.4	Allegan	8,205	150.9	10.8
Midland	10,750	136.9	10.3	Menominee	8,060	182.2	10.3
Kent	10,586	150.9	9.9	Gogebic	8,022	153.8	10.1
Calhoun	10,497	144.3	9.5	Iosco	7,968	138.3	10.9
Saginaw	10,485	149.7	9.7	Barry	7,913	130.3	6.1
Monroe	10,163	159.4	12.6	Ionia	7,837	158.6	8.7
Grand Traverse	10,160	157.6	9.7	Wexford	7,768	150.5	9.6
Bay	10,048	159.1	11.6	Benzie	7,740	127.8	11.5
Clinton	9,850	150.1	7.7	Cheboygan	7,717	150.1	8.0
Dickinson	9,763	175.8	6.4	Isabella	7,687	176.2	17.5
Jackson	9,758	138.1	10.5	Keweenaw	7,657	190.1	11.9
Luce	9,698	235.3	11.5	Presque Isle	7,646	178.8	14.7
Ottawa	9,655	142.5	8.9	Baraga	7,568	135.9	8.1
Eaton	9,638	133.8	10.4	Chippewa	7,562	156.9	16.4
Shiawassee	9,574	149.4	8.4	Roscommon	7,514	135.5	10.3
Lenawee	9,525	145.1	8.6	Mason	7,505	123.4	7.5
Berrien	9,501	128.2	11.3	Montmorency	7,500	155.8	9.7
St. Clair	9,481	148.6	12.0	Kalkaska	7,369	165.1	18.1
Livingston	9,464	142.8	8.3	Houghton	7,301	165.7	11.6
Huron	9,356	183.3	8.5	Arenac	7,226	136.8	10.4
Cass	9,174	142.6	8.6	Newaygo	7,206	122.8	10.7
Gratiot	9,147	151.6	5.6	Oceana	7,170	132.4	8.0
Muskegon	9,123	154.7	8.8	Ontonagon	7,131	145.2	11.4
Emmet	9,099	149.1	8.3	Gladwin	7,037	135.5	9.6
Tuscola	9,007	152.7	7.8	Alcona	7,025	157.7	12.7
Lapeer	8,892	141.1	9.5	Clare	6,998	144.0	9.7
St. Joseph	8,869	129.6	7.5	Alger	6,934	164.5	12.3
Branch	8,844	161.9	8.1	Osceola	6,873	155.6	10.4
Marquette	8,752	169.6	11.0	Crawford	6,798	149.3	12.0
Otsego	8,723	170.1	9.5	Ogemaw	6,756	150.1	12.4
Montcalm	8,686	151.8	9.8	Lake	6,529	131.7	13.1
Leelanau	8,660	140.0	9.2	Missaukee	6,309	152.0	8.1
Charlevoix	8,636	170.1	10.6	Mecosta	5,929	144.8	4.7
Iron	8,601	194.3	11.0	Oscoda	5,183	110.4	7.6
Mackinac	8,507	189.1	14.9				
Hillsdale	8,479	144.4	14.2	Michigan	10,758	147.0	8.6
Van Buren	8,462	145.6	10.5	United States	10,495	151.9	10.7

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-7. TOTAL PERSONAL INCOME IN MICHIGAN COUNTIES: 1973-1981

(In millions of dollars)

County	1973	1974	1975	1976	1977	1978	1979	1980	1981
Gladwin	53.1	60.6	66.4	74.4	86.6	100.0	115.6	129.2	140.4
Gogebic	79.0	88.9	96.6	103.3	107.5	116.4	127.5	142.3	156.6
Grand Traverse	202.7	229.4	259.8	293.4	341.3	403.3	457.9	512.8	568.7
Gratiot	188.8	214.5	215.5	233.2	253.6	279.0	313.9	350.2	369.4
Hillsdale	174.0	187.0	195.2	217.5	248.2	277.3	305.8	312.6	351.3
Houghton	118.6	131.9	147.9	165.5	182.3	199.7	218.4	247.0	274.6
Huron	161.0	192.4	181.7	198.2	219.2	245.7	278.8	313.7	338.1
Ingham	1,383.7	1,444.0	1,598.5	1,822.4	2,043.7	2,271.5	2,532.0	2,709.2	3,037.8
Ionia	184.1	200.1	215.7	238.0	266.4	305.9	342.1	374.2	407.5
Iosco	109.0	118.7	129.7	145.0	155.5	170.0	187.5	203.0	224.6
Iron	48.1	55.7	63.0	70.0	77.0	84.3	94.8	105.1	118.5
Isabella	166.3	192.8	200.8	224.2	248.7	283.7	319.0	353.7	409.7
Jackson	740.0	792.8	848.8	913.9	1,016.6	1,146.1	1,264.7	1,336.0	1,459.5
Kalamazoo	1,026.5	1,133.0	1,235.0	1,370.6	1,535.0	1,718.7	1,926.9	2,108.1	2,320.7
Kalkaska	22.8	28.7	37.0	44.0	50.9	57.7	63.9	69.6	82.6
Kent	2,141.8	2,339.1	2,449.5	2,712.0	3,044.2	3,489.1	3,974.2	4,293.0	4,755.1
Keweenaw	7.3	7.9	8.7	9.6	9.7	10.9	11.9	13.4	15.3
Lake	21.3	23.2	24.8	27.6	30.8	34.8	39.1	44.6	49.9
Lapeer	260.9	279.8	296.8	342.5	420.1	484.3	544.0	572.2	626.4
Leelanau	51.8	61.2	62.6	67.7	82.0	96.0	101.5	111.5	124.6
Lenawee	418.4	444.9	477.7	525.0	601.9	666.0	741.7	787.9	845.2
Livingston	331.3	375.3	413.1	494.9	585.2	699.9	815.5	887.5	968.4
Luce	25.3	28.6	33.6	37.7	41.7	45.6	50.5	57.4	61.9
Mackinac	36.7	40.4	44.2	50.1	54.9	61.9	68.4	74.9	86.2
Macomb	3,805.2	4,079.8	4,284.0	4,962.7	5,783.0	6,565.7	7,307.8	7,613.2	7,993.8

TABLE VI-7. TOTAL PERSONAL INCOME IN MICHIGAN COUNTIES: 1973-1981

(In millions of dollars)

County	1973	1974	1975	1976	1977	1978	1979	1980	1981
Manistee	76.3	86.3	99.5	110.5	126.9	143.2	158.0	173.0	189.5
Marquette	273.5	308.7	347.0	390.7	423.2	497.3	549.7	582.7	635.7
Mason	92.2	104.5	110.2	121.4	136.6	152.8	171.1	184.9	202.0
Mecosta	90.6	102.6	114.6	124.4	139.4	156.9	174.5	210.0	218.4
Menominee	90.3	102.8	111.2	123.3	137.9	158.6	178.3	191.2	212.1
Midland	341.9	391.6	423.3	483.1	545.9	607.7	680.8	718.4	787.1
Missaukee	27.4	29.7	33.7	37.1	40.3	46.9	52.9	58.8	65.1
Monroe	616.9	653.8	695.8	785.5	909.4	1,018.6	1,138.7	1,216.6	1,362.8
Montcalm	170.2	197.6	209.0	227.3	258.8	289.2	313.2	377.3	422.7
Montmorency	20.9	23.6	26.4	30.0	34.9	40.6	45.8	51.2	56.0
Muskegon	687.8	759.9	814.1	891.6	980.9	1,102.7	1,231.1	1,319.8	1,435.0
Newaygo	113.8	120.9	133.2	148.2	164.9	190.7	212.5	227.8	253.5
Oakland	6,493.2	6,938.5	7,366.1	8,342.7	9,682.6	11,095.8	12,382.7	13,154.9	14,250.3
Oceana	71.0	82.8	85.8	93.7	108.2	125.0	135.9	145.9	156.5
Ogemaw	42.6	49.9	55.6	63.3	70.9	77.8	90.4	99.4	109.5
Ontonagon	40.2	44.5	50.5	49.3	51.2	52.1	57.4	62.4	70.6
Osceola	59.8	66.5	71.6	73.7	84.2	93.1	103.2	117.9	130.0
Oscoda	15.7	18.4	20.6	23.1	25.4	27.8	30.7	33.2	36.9
Otsego	47.8	52.6	62.9	73.1	84.7	95.9	109.9	120.2	132.1
Ottawa	660.7	716.5	756.8	852.2	994.1	1,154.9	1,333.2	1,401.1	1,542.3
Presque Isle	45.6	51.7	57.5	62.7	69.9	78.0	85.4	94.9	107.8
Roscommon	43.4	49.6	58.3	66.9	76.8	85.7	97.6	112.1	127.5
Saginaw	1,161.5	1,222.8	1,294.4	1,511.5	1,714.0	1,886.2	2,063.5	2,178.9	2,368.1
St. Clair	591.3	640.8	687.1	774.0	882.7	1,006.3	1,097.2	1,174.8	1,308.2
St. Joseph	241.8	249.7	275.4	305.6	340.9	382.0	431.4	463.9	505.3

TABLE VI-8. PER CAPITA PERSONAL INCOME IN MICHIGAN COUNTIES: 1973-1981

(In dollars)

County	1973	1974	1975	1976	1977	1978	1979	1980	1981
Alcona	3,157	3,349	3,775	4,225	4,646	5,070	5,719	6,236	7,025
Alger	3,243	3,564	3,922	4,303	4,650	5,165	5,598	6,174	6,934
Allegan	4,076	4,366	4,551	4,958	5,561	6,353	6,996	7,407	8,205
Alpena	3,985	4,422	4,817	5,319	5,870	6,690	7,354	7,940	8,450
Antrim	3,778	4,090	4,376	4,762	5,457	6,131	6,773	7,620	8,232
Arenac	3,664	4,113	4,179	4,840	5,353	5,724	6,187	6,547	7,226
Baraga	3,602	3,945	4,392	4,851	5,113	5,748	6,304	7,000	7,568
Barry	4,131	4,392	4,655	5,098	5,650	6,352	6,991	7,458	7,913
Bay	4,607	5,077	5,397	6,107	6,893	7,476	8,255	9,007	10,048
Benzie	3,852	4,184	4,434	4,773	5,425	6,088	6,536	6,940	7,740
Berrien	5,024	5,418	5,567	5,907	6,636	7,395	7,942	8,536	9,501
Branch	4,220	4,455	5,068	5,536	6,412	7,103	7,826	8,178	8,844
Calhoun	5,168	5,470	6,034	6,713	7,312	8,049	8,946	9,587	10,497
Cass	4,737	4,808	5,025	5,712	6,252	7,138	7,887	8,449	9,174
Charlevoix	3,946	4,340	4,735	5,140	5,809	6,636	7,298	7,810	8,636
Cheboygan	3,622	3,889	4,342	4,750	5,293	5,915	6,618	7,143	7,717
Chippewa	3,470	3,730	4,160	4,457	4,495	5,093	5,608	6,494	7,562
Clare	3,306	3,663	4,019	4,401	5,029	5,534	6,131	6,380	6,998
Clinton	4,687	4,899	5,119	5,679	6,335	7,228	8,033	9,142	9,850
Crawford	3,184	3,415	4,278	4,443	4,828	5,260	5,390	6,071	6,798
Delta	3,787	4,272	4,577	5,139	5,509	6,006	6,680	7,424	8,357
Dickinson	4,388	5,060	5,481	6,062	6,730	7,492	8,392	9,175	9,763
Eaton	4,883	4,939	5,303	5,986	6,857	7,374	8,182	8,733	9,638
Emmet	4,302	4,665	4,990	5,518	6,152	6,814	7,597	8,399	9,099
Genesee	5,341	5,432	5,898	7,066	8,114	8,851	9,647	10,132	11,296

TABLE VI-8. PER CAPITA PERSONAL INCOME IN MICHIGAN COUNTIES: 1973-1981

(In dollars)

County	1973	1974	1975	1976	1977	1978	1979	1980	1981
Gladwin	3,406	3,683	3,897	4,241	4,792	5,344	5,815	6,423	7,037
Gogebic	3,746	4,206	4,553	4,913	5,157	5,662	6,280	7,283	8,022
Grand Traverse	4,569	4,977	5,608	6,152	6,916	7,860	8,554	9,265	10,160
Gratiot	4,671	5,327	5,347	5,824	6,303	6,943	7,786	8,660	9,147
Hillsdale	4,421	4,665	4,823	5,332	6,047	6,676	7,405	7,426	8,479
Houghton	3,215	3,529	3,884	4,279	4,685	5,213	5,728	6,542	7,301
Huron	4,500	5,385	5,010	5,436	6,004	6,697	7,587	8,624	9,356
Ingham	5,187	5,372	6,017	6,824	7,651	8,441	9,397	9,940	11,062
Ionia	3,859	4,184	4,473	4,828	5,314	6,031	6,638	7,210	7,837
Iosco	3,954	4,290	4,697	5,157	5,393	5,900	6,499	7,186	7,968
Iron	3,556	4,106	4,555	4,981	5,470	6,000	6,765	7,748	8,601
Isabella	3,400	3,773	4,007	4,387	4,722	5,266	5,831	6,541	7,687
Jackson	5,087	5,397	5,739	6,154	6,764	7,565	8,332	8,830	9,758
Kalamazoo	5,104	5,592	6,062	6,656	7,398	8,222	9,163	9,917	10,852
Kalkaska	3,549	4,143	4,933	4,302	5,197	6,134	5,960	6,239	7,369
Kent	5,124	5,562	5,816	6,398	7,117	8,081	9,069	9,631	10,586
Keweenaw	3,454	3,951	4,321	4,599	4,685	5,415	6,043	6,840	7,657
Lake	3,215	3,398	3,514	3,851	4,121	4,605	4,964	5,773	6,529
Lapeer	4,535	4,666	4,828	5,454	6,534	7,279	7,882	8,123	8,892
Leelanau	4,226	4,948	4,955	5,231	6,188	7,089	7,111	7,931	8,660
Lenawee	4,882	5,094	5,426	5,939	6,782	7,406	8,188	8,771	9,525
Livingston	4,761	5,068	5,397	6,199	6,907	7,710	8,435	8,742	9,464
Luce	3,657	4,107	4,881	5,364	5,924	6,547	7,344	8,696	9,698
Mackinac	3,614	3,922	4,289	4,870	5,298	5,907	6,654	7,404	8,507
Macomb	5,869	6,223	6,517	7,500	8,603	9,642	10,596	10,944	11,430

TABLE VI-10. DIVIDENDS, INTEREST, AND RENT PER CAPITA, AND RANKING OF MICHIGAN COUNTIES ACCORDING TO DIVIDENDS, INTEREST, AND RENT AS A PERCENTAGE OF TOTAL PERSONAL INCOME: 1981

County	Percentage	Per capita	County	Percentage	Per capita
Roscommon	31.1	2,334	Wexford	17.0	1,320
Montmorency	30.8	2,299	St. Clair	16.9	1,601
Leelanau	30.5	2,642	Alger	16.7	1,164
Alcona	27.8	1,959	Alpena	16.7	1,407
Antrim	27.3	2,253	Kalamazoo	16.6	1,798
Oscoda	26.8	1,395	Hillsdale	16.5	1,399
Emmet	26.0	2,367	Gladwin	16.4	1,159
Huron	25.3	2,369	Washtenaw	16.4	1,875
Benzie	24.8	1,916	Newaygo	16.1	1,162
Crawford	24.4	1,659	Allegan	16.1	1,324
Sanilac	22.9	1,889	Kalkaska	16.1	1,187
Keweenaw	22.7	1,733	Gratiot	16.0	1,465
Ogemaw	22.1	1,491	Ontonagon	16.0	1,139
Missaukee	21.8	1,376	Barry	15.9	1,260
Grand Traverse	21.3	2,164	Kent	15.9	1,685
Lake	21.2	1,391	Tuscola	15.9	1,434
Houghton	21.0	1,533	Bay	15.9	1,598
Cheboygan	20.9	1,613	Baraga	15.8	1,190
Mackinac	20.7	1,770	Cass	15.7	1,436
Presque Isle	20.6	1,574	Ottawa	15.6	1,511
Manistee	20.3	1,701	Van Buren	15.3	1,296
Iosco	20.2	1,608	Jackson	15.1	1,476
Arenac	20.0	1,438	Isabella	15.1	1,157
Otsego	19.8	1,736	Montcalm	14.9	1,297
Schoolcraft	19.8	1,631	Ionia	14.9	1,168
Oakland	19.8	2,800	Eaton	14.8	1,426
Gogebic	19.8	1,587	Livingston	14.8	1,400
Mason	19.6	1,472	Calhoun	14.6	1,528
Charlevoix	19.3	1,663	Saginaw	14.3	1,501
Clare	19.2	1,341	Clinton	14.2	1,400
Oceana	19.1	1,374	Macomb	14.1	1,615
Iron	18.9	1,619	Shiawassee	14.0	1,343
Chippewa	18.3	1,385	Muskegon	14.0	1,279
Dickinson	18.0	1,757	Ingham	13.8	1,532
St. Joseph	17.7	1,568	Lapeer	13.6	1,214
Berrien	17.6	1,676	Wayne	13.3	1,533
Osceola	17.6	1,211	Monroe	13.2	1,345
Lenawee	17.5	1,671	Marquette	13.2	1,156
Mecosta	17.3	1,026	Luce	13.2	1,272
Menominee	17.3	1,395	Genesee	12.6	1,427
Branch	17.3	1,530			
Delta	17.1	1,429	Michigan	15.6	1,682
Midland	17.1	1,835	United States	17.7	1,855

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-11. GROWTH IN TOTAL PERSONAL INCOME, 1971-1981, AND RANKING OF OF MICHIGAN COUNTIES ACCORDING TO GROWTH IN TOTAL PERSONAL INCOME: 1980-1981

	Percentage change			Percentage change	
County	1971-1981	1980-1981	County	1971-1981	1980-1981
Kalkaska	427	19	Otsego	277	10
Isabella	215	16	Sanilac	173	10
Mackinac	192	15	Manistee	175	10
Keweenaw	140	14	Midland	167	10
Roscommon	269	14	Lapeer	213	9
Presque Isle	200	14	Montmorency	256	9
Chippewa	116	14	Berrien	132	9
Alcona	233	13	Emmet	199	9
Ontonagon	126	13	Jackson	148	9
Iron	199	13	Mason	152	9
Hillsdale	164	12	Livingston	305	9
Ingham	169	12	Marquette	193	9
Crawford	252	12	Antrim	230	9
Montcalm	202	12	Charlevoix	210	9
Monroe	186	12	St. Joseph	171	9
Lake	183	12	Ionia	186	9
Benzie	198	12	Muskegon	153	9
Leelanau	216	12	Gladwin	233	9
Delta	180	12	Saginaw	153	9
Schoolcraft	190	12	Washtenaw	189	9
St. Clair	174	11	Clinton	188	8
Newaygo	176	11	Calhoun	143	8
Clare	238	11	Oakland	177	8
Houghton	178	11	Baraga	158	8
Oscoda	208	11	Branch	170	8
Genesee	154	11	Huron	191	8
Menominee	199	11	Luce	197	8
Grand Traverse	253	11	Shiawassee	170	7
Allegan	199	11	Cheboygan	199	7
Kent	174	11	Lenawee	162	7
Missaukee	231	11	Cass	173	7
Wexford	213	11	Oceana	171	7
Iosco	155	11	Barry	173	7
Bay	159	11	Alpena	168	7
Alger	183	11	Tuscola	187	7
Osceola	204	10	Dickinson	192	6
Eaton	193	10	Gratiot	154	5
Ogemaw	233	10	Wayne	110	5
Arenac	200	10	Macomb	169	5
Van Buren	182	10	Mecosta	209	4
Kalamazoo	172	10			
Ottawa	199	10	Michigan	153	8
Gogebic	140	10	United States	179	12

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-12. GROWTH IN LABOR AND PROPRIETORS' EARNINGS, BY COUNTY IN WHICH EARNED, 1971-1981, AND RANKING OF MICHIGAN COUNTIES ACCORDING TO GROWTH IN LABOR AND PROPRIETORS' EARNINGS, BY COUNTY IN WHICH EARNED: 1980-1981

County	Percentage change 1971-1981	Percentage change 1980-1981	County	Percentage change 1971-1981	Percentage change 1980-1981
Ontonagon	90	24	Berrien	98	6
Kalkaska	642	23	Oakland	192	6
Monroe	167	18	Benzie	137	6
Isabella	202	18	Leelanau	110	6
Osceola	151	13	Calhoun	117	6
Hillsdale	136	13	St. Joseph	136	6
Genesee	142	13	Ogemaw	200	6
Delta	157	13	Livingston	208	6
Mackinac	150	13	Branch	143	6
St. Clair	141	12	Muskegon	130	5
Chippewa	60	11	Lapeer	145	5
Ingham	163	11	Eaton	146	5
Presque Isle	143	11	Alcona	135	5
Bay	130	11	Mason	88	5
Iron	138	11	Emmet	142	5
Montcalm	146	10	Sanilac	103	5
Menominee	164	10	Lenawee	93	5
Marquette	178	10	Schoolcraft	145	4
Allegan	158	9	Manistee	135	4
Clinton	167	9	Oscoda	114	4
Ionia	164	9	Alger	128	4
Wexford	180	9	Shiawassee	103	3
Kent	168	8	Gratiot	136	3
Keweenaw	4	8	Gladwin	160	3
Saginaw	132	8	Wayne	88	3
Kalamazoo	163	8	Macomb	128	3
Ottawa	188	8	Luce	157	2
Clare	147	8	Alpena	127	2
Newaygo	112	8	Tuscola	153	2
Otsego	274	8	Huron	140	1
Crawford	179	8	Lake	52	1
Van Buren	139	8	Barry	126	1
Midland	155	7	Cheboygan	149	1
Iosco	94	7	Gogebic	88	0
Grand Traverse	219	7	Oceana	146	0
Cass	133	7	Baraga	102	-1
Washtenaw	192	7	Antrim	143	-1
Jackson	125	7	Mecosta	166	-1
Missaukee	163	7	Dickinson	159	-2
Roscommon	175	6	Montmorency	82	-6
Charlevoix	178	6			
Arenac	159	6	Michigan	129	6
Houghton	141	6	United States	157	10

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-13. EARNINGS RESIDENCE ADJUSTMENT FOR MICHIGAN COUNTIES: 1981

(Dollar figures in thousands)

County	Labor and proprietors' earnings, by county in which earned	Residence adjustment	Labor and proprietors' earnings, by county in which received	(a) Proportion
Eaton	212,982	422,940	635,922	0.6651
Clinton	148,376	266,581	414,957	0.6424
Livingston	289,349	442,865	732,214	0.6048
Leelanau	32,407	33,291	65,698	0.5067
Lapeer	229,245	220,637	449,882	0.4904
Keweenaw	3,208	3,060	6,268	0.4882
Cass	163,810	151,654	315,464	0.4807
Shiawassee	256,153	223,628	479,781	0.4661
Monroe	557,195	457,125	1,014,320	0.4507
Barry	140,786	113,562	254,348	0.4465
Gladwin	45,699	34,053	79,752	0.4270
Lake	12,460	8,137	20,597	0.3951
Tuscola	218,972	129,581	348,553	0.3718
Oceana	56,993	32,577	89,570	0.3637
Allegan	297,927	169,558	467,485	0.3627
Newaygo	102,973	56,236	159,209	0.3532
Arenac	37,821	19,721	57,542	0.3427
Van Buren	247,356	117,977	365,333	0.3229
Alcona	17,804	7,830	25,634	0.3055
Clare	61,702	26,258	87,960	0.2985
Missaukee	25,085	9,972	35,057	0.2845
Ionia	199,633	73,709	273,342	0.2697
St. Clair	647,225	227,843	875,068	0.2604
Macomb	4,497,932	1,509,366	6,007,298	0.2513
Gogebic	63,190	17,091	80,281	0.2129
Bay	669,317	160,852	830,169	0.1938
Hillsdale	187,887	44,675	232,562	0.1921
Sanilac	154,747	35,302	190,049	0.1858
Lenawee	465,237	105,712	570,949	0.1852
Ottawa	924,133	208,639	1,132,772	0.1842
Antrim	55,315	12,254	67,569	0.1814
Menominee	112,446	23,944	136,390	0.1756
Montmorency	15,321	3,104	18,425	0.1685
Iron	51,641	9,998	61,639	0.1622
Montcalm	236,996	41,829	278,825	0.1500

TABLE VI-13. EARNINGS RESIDENCE ADJUSTMENT FOR MICHIGAN COUNTIES: 1981

(Dollar figures in thousands)

County	Labor and proprietors' earnings, by county in which earned	Residence adjustment	Labor and proprietors' earnings, by county in which received	(a) Proportion
Benzie	38,071	6,030	44,101	0.1367
Gratiot	221,949	31,788	253,737	0.1253
Alger	31,324	4,266	35,590	0.1199
Oakland	9,054,301	1,054,305	10,108,606	0.1043
Baraga	33,617	3,151	36,768	0.0857
Mecosta	120,630	10.430	131,060	0.0796
Isabella	263,330	18,627	281,957	0.0661
Oscoda	12,928	860	13,788	0.0624
Huron	179,731	11,739	191,470	0.0613
Branch	219,959	13,149	233,108	0.0564
Presque Isle	56,782	3,138	59,920	0.0524
Charlevoix	97,610	4,664	102,274	0.0456
St. Joseph	317,751	15,105	332,856	0.0454
Osceola	71,899	2,626	74,525	0.0352
Mackinac	46,328	1,548	47,876	0.0323
Jackson	997,320	32,833	1,030,153	0.0319
Kalkaska	50,796	1,559	52,355	0.0298
Schoolcraft	35,665	966	36,631	0.0264
Cheboygan	83,637	1,822	85,459	0.0213
Houghton	141,991	3,035	145,026	0.0209
Ogemaw	51,947	962	52,909	0.0182
Crawford	31,940	235	32,175	0.0073
Chippewa	114,977	833	115,810	0.0072
Manistee	109,255	17	109,272	0.0002
Berrien	1,053,971	-5,358	1,048,613	-0.0051
Iosco	128,500	-2,000	126,500	-0.0156
Mason	123,567	-2,111	121,456	-0.0171
Alpena	174,348	-3,328	171,020	-0.0191
Muskegon	1,009,960	-27,029	982,931	-0.0268
Dickinson	158,024	-4,351	153,673	-0.0275
Roscommon	45,406	-1,636	43,770	-0.0360
Marquette	469,271	-19,555	449,716	-0.0417
Delta	204,736	-8,777	195,959	-0.0429
Calhoun	1,061,369	-52,021	1,009,348	-0.0490
Luce	40,834	-2,228	38,606	-0.0546

TABLE VI-13. EARNINGS RESIDENCE ADJUSTMENT FOR MICHIGAN COUNTIES: 1981

(Dollar figures in thousands)

County	Labor and proprietors´ earnings, by county in which earned	Residence adjustment	Labor and proprietors´ earnings, by county in which received	(a) Proportion
Emmet	125,396	-9,469	115,927	-0.0755
Saginaw	1,848,933	-165,982	1,682,951	-0.0898
Kalamazoo	1,839,159	-181,981	1,657,178	-0.0989
Otsego	91,514	-9,262	82,252	-0.1012
Genesee	4,190,571	-466,556	3,724,015	-0.1113
Wexford	134,795	-15,118	119,677	-0.1122
Grand Traverse	411,989	-49,243	362,746	-0.1195
Kent	3,864,741	-465,865	3,398,876	-0.1205
Wayne	21,306,995	-3,007,848	18,299,147	-0.1412
Midland	686,693	-111,530	575,163	-0.1624
Washtenaw	2,835,392	-635,540	2,199,852	-0.2241
Ingham	3,122,133	-897,921	2,224,212	-0.2876
Ontonagon	68,941	-28,784	40,157	-0.4175
Michigan	68,820,300	471,756	69,292,056	0.0068
United States	1,645,325,008	-484,000	1,644,841,008	-0.0003

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a. Residence Adjustment as percentage of labor and proprietors´s earnings received (where positive) or generated (where negative).

TABLE VI-14. RANKING OF MICHIGAN COUNTIES ACCORDING TO NONFARM PROPRIETORS' EARNINGS AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1981

County	Percentage 1980	Percentage 1981	County	Percentage 1980	Percentage 1981
Montmorency	23.54	25.53	Allegan	8.33	8.12
Alcona	26.01	25.45	Manistee	7.92	8.04
Lake	23.62	24.12	Mecosta	7.56	8.02
Oscoda	21.03	21.08	Delta	8.48	7.95
Keweenaw	20.99	21.01	Houghton	7.91	7.92
Leelanau	18.20	18.09	Iosco	8.13	7.89
Mackinac	17.85	16.60	Ottawa	7.96	7.84
Alger	16.15	16.32	Menominee	8.22	7.79
Roscommon	16.21	16.14	Van Buren	7.89	7.75
Clare	16.28	15.91	Mason	7.52	7.67
Gladwin	15.09	15.55	St. Clair	8.03	7.61
Missaukee	15.21	15.07	Dickinson	6.84	7.44
Iron	14.33	13.33	Montcalm	7.53	7.42
Ogemaw	12.03	12.66	Ionia	7.59	7.41
Cheboygan	12.21	12.62	Monroe	8.35	7.40
Gogebic	11.80	12.62	Isabella	7.90	7.36
Crawford	12.38	12.35	Kalkaska	8.61	7.26
Benzie	12.31	12.15	Bay	7.43	7.10
Chippewa	12.62	11.82	Alpena	6.76	6.97
Schoolcraft	11.65	11.74	Grand Traverse	6.94	6.88
Oceana	10.68	11.57	Branch	6.79	6.83
Arenac	10.87	11.41	Lenawee	6.64	6.75
Livingston	11.47	11.24	Luce	6.51	6.71
Newaygo	11.33	11.14	Berrien	6.74	6.70
Baraga	10.38	10.96	Gratiot	6.19	6.43
Antrim	9.85	10.47	Kent	6.01	5.85
Otsego	10.29	10.43	Macomb	5.80	5.83
Eaton	10.46	10.28	St. Joseph	5.81	5.79
Barry	9.80	10.23	Muskegon	5.46	5.48
Presque Isle	10.45	10.04	Jackson	5.09	5.06
Wexford	10.16	10.01	Kalamazoo	4.88	4.69
Osceola	10.44	9.89	Saginaw	4.76	4.59
Clinton	10.02	9.48	Calhoun	4.55	4.55
Sanilac	9.25	9.38	Marquette	4.55	4.46
Huron	8.62	9.11	Ontonagon	4.94	4.30
Tuscola	8.60	8.99	Washtenaw	3.48	3.43
Emmet	8.90	8.96	Ingham	3.65	3.41
Oakland	9.09	8.88	Genesee	3.56	3.27
Charlevoix	8.92	8.84	Wayne	3.13	3.14
Cass	8.96	8.83	Midland	3.16	3.09
Shiawassee	8.28	8.44			
Hillsdale	8.57	8.27	Michigan	5.42	5.34
Lapeer	8.31	8.25	United States	6.08	5.76

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VI-15 PREVIOUS YEAR'S MEDIAN AND MEAN INCOME AMONG HOUSEHOLDS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: 1977-1980

	Detroit			U.S.		
	Inside central city	Outside central city	Total	Inside central city	Outside central city	Total
			March 1978			
Median Income	12,726	20,050	17,785	12,059	16,579	14,611
Standard Error	569	532	405	83	86	74
Mean Income	14,550	22,096	19,676	14,898	18,940	17,137
Standard Error	538	530	411	91	85	63
			March 1979			
Median Income	15,623	22,392	19,710	13,089	18,239	15,970
Standard Error	764	761	537	119	118	84
Mean Income	16,672	24,962	22,359	16,305	20,743	18,779
Standard Error	776	713	563	123	116	86
			March 1980			
Median Income	13,170	24,523	21,366	14,397	20,270	17,611
Standard Error	1,306	717	553	146	128	107
Mean Income	15,985	26,412	23,167	17,772	23,087	20,756
Standard Error	781	683	555	131	130	94
			March 1981			
Median Income	12,676	n.a.	22,182	15,629	21,699	19,043
Standard Error	1,641	n.a.	734	206	134	161
Mean Income	16,635	n.a.	24,502	19,237	24,757	22,348
Standard Error	841	n.a.	618	195	190	139

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Reports, Series P-60, No. 126, and No. 132 for 1981 data (Washington, D.C.: annually).

NOTE: The surveys were conducted in March 1978, 1979, 1980, and 1981. The income data pertain to 1977, 1978, 1979, and 1980. Median income is that of the middle household in a ranking of households, highest to lowest, in income. Mean income is the arithmetic average, that is total income received by all households divided by the number of households. A household consists of all persons, whether or not related who occupy a house, an apartment, or other group of rooms, or a room, which constitutes a housing unit. Standard error is a measure of sampling variability, that is, of the variations that occurred by chance because a sample rather than the whole population was surveyed. The chances are about 68 out of 100 that an estimate from the survey differs from what the complete census figure would have been by less than the standard error.

TABLE VI-17. PREVIOUS YEAR'S MEDIAN AND MEAN INCOME AMONG FAMILIES AND UNRELATED INDIVIDUALS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: 1977-1980

	Detroit			United States		
	Famlies		Unrelated individuals	Famlies		Unrelated individuals
	Inside central city	Total SMSA	total SMSA	Inside central city	Total SMSA	Total SMSA
			March 1978			
Median Income	17,991	20,720	5,736	14,933	17,371	6,449
Standard Error	1,303	525	440	732	110	92
Mean Income	18,077	22,296	8,359	21,720	19,579	8,536
Standard Error	894	812	602	726	106	99
			March 1979			
Median Income	17,931	22,692	8,592	16,267	18,910	7,368
Standard Error	1,057	1,024	1,469	214	144	120
Mean Income	19,476	25,278	11,445	19,027	21,431	9,498
Standard Error	1,335	898	1,023	226	145	126
			March 1980			
Median Income	17,788	24,442	7,544	18,046	21,074	8,198
Standard Error	2,570	886	1,362	256	149	129
Mean Income	19,120	26,395	10,382	20,877	23,819	10,402
Standard Error	1,311	875	870	245	162	128
			March 1981			
Median Income	15,984	26,086	n.a.	19,378	22,590	n.a.
Standard Error	2,135	807	n.a.	276	176	n.a.
Mean Income	19,066	27,963	n.a.	22,527	25,593	n.a.
Standard Error	1,561	1,044	n.a.	255	168	n.a.

SOURCE: Bureau of the Census, Current Population Reports, Series P-60, No. 123, No. 0129, and 132 (Washington, D.C.: annually), and similar reports for previous years.

NOTE: The surveys were conducted in March 1978, 1979, 1980, and 1981. The income data pertain to 1977, 1978, 1979, and 1980. Median income is that of the middle item in a ranking, highest to lowest, in income. Mean income is the arithmetic average, that is, total income received by all units divided by the number of units. The family consists of two or more related individuals living together. Standard error is a measure of sampling variability, that is, of the variations that occurred by chance because a sample rather than the whole population was surveyed. The chances are about 68 our of 100 that an estimate from the survey differs from what the complete census figure would have been by less than the standard error.

TABLE VI-18. PREVIOUS YEAR'S MONEY INCOME SIZE DISTRIBUTION AMONG FAMILIES AND UNRELATED INDIVIDUALS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: 1980 AND 1981

Income class	March 1980			March 1981		
	Families		Unrelated individuals, total SMSA	Families		Unrelated individuals, total SMSA
	Inside central city	Total SMSA		Inside central city	Total SMSA	
Detroit, number of families and unrelated individuals (1,000)						
Under $5,000	40	70	37	48	81	n.a.
$5,000-9,999	54	96	34	54	97	n.a.
10,000-14,999	46	119	44	31	90	n.a.
15,000-19,999	31	115	34	36	109	n.a.
20,000-24,999	55	190	7	15	123	n.a.
25,000-29,999	24	137	41	33	150	n.a.
30,000-34,999	20	119	22	16	113	n.a.
35,000-39,999	24	102	45	19	96	n.a.
40,000-49,999	14	122	97	21	113	n.a.
50,000-74,999	4	60	18	8	90	n.a.
75,000 and over	0	11	2	0	20	n.a.
Total	313	1,142	381	281	1,082	n.a.
U.S., number of families and unrelated individuals (1,000)						
Under $5,000	1,459	2,392	1,389	1,365	2,242	5,484
$5,000-9,000	2,420	4,717	1,278	2,273	4,478	5,134
10,000-14,999	2,566	5,616	1,680	2,294	5,082	3,725
15,000-19,999	2,189	5,480	1,609	2,251	5,271	2,403
20,000-24,999	2,140	5,702	1,161	2,022	5,466	1,439
25,000-29,999	1,635	4,792	2,135	1,638	4,714	717
30,000-34,999	1,009	3,298	1,752	1,248	3,750	354
35,000-39,999	628	2,146	3,579	840	2,686	143
40,000-49,999	723	2,464	3,261	962	3,226	151
50,000-74,999	567	1,822	941	724	2,486	143
75,000 and over	171	620	123	222	759	57
Total	15,506	39,049	18,918	15,839	40,203	19,749

SOURCE: Bureau of the Census, Current Population Reports, Consumer Income, Series P-60, no. 123, 129 and 132 (Washington, D.C.: annually).

NOTE: The surveys were conducted in March 1980 and 1981. The income data pertain to 1979 and 1980. Median income is that of the middle item in a ranking, highest to lowest, in income. Mean income is the arithmetic average, that is, total income received by all units divided by the number of units. A family consists of two or more related individuals living together. Standard error is a measure of sampling variability, that is, of the variations that occurred by chance because a sample rather than the whole population was surveyed. The chances are about 68 out of 100 that an estimate from the survey differs from what the complete census figure would have been by less than the standard error.

TABLE VI-19. PREVIOUS YEAR'S POVERTY AMONG PERSONS AND FAMILIES IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: CENSUS 1970, MARCH 1978 MARCH 1979, MARCH 1980, AND MARCH 1981

Item and year	Persons			Families		
	Inside central city	Outside central city	Total	Inside central city	Outside central city	Total
			Detroit SMSA (1,000)			
Number below poverty level (1,000)						
1970	222	130	252	42	26	68
1977	249	135	384	55	28	83
1978	174	142	316	34	31	65
1979	144	135	279	28	30	58
1981	345	205	550	74	46	120
Poverty rate[a]						
1970	14.9	4.9	8.5	11.3	3.9	6.5
1977	20.4	n.a.	9.4	17.7	n.a.	7.8
1978	14.7	4.9	7.8	11.8	4.0	6.1
1979	12.1	4.5	6.6	9.1	3.8	5.3
1981	28.6	6.9	13.1	26.2	5.7	11.1
			All U.S. SMSAs (1,000)			
Number below poverty level (1,000)						
1970	7,993	5,091	13,084	1,609	1,002	2,611
1977	9,482	5,747	15,229	1,961	1,276	3,237
1978	9,203	5,657	14,859	1,925	1,216	3,141
1979	9,720	6,415	16,134	1,983	1,222	3,205
1981	10,644	7,377	18,021	2,214	1,578	3,792
Poverty rate[a]						
1970	12.7	6.8	9.5	9.8	5.3	7.4
1977	15.8	6.9	10.7	12.6	5.7	8.5
1978	15.4	6.8	13.9	12.5	5.4	8.3
1979	15.7	7.2	10.7	12.7	5.3	8.3
1981	17.2	8.2	11.9	14.0	6.5	9.4

SOURCE: U.S. Department of Commerce, Bureau of the Census, U.S. Census of Population 1970, General Social and Economic Characteristics, Michigan, (Washington, D.C.: 1972), Final Report PC(1)-C-24, Table 90, Current Population Reports, Series P-60, no. 124 and 133, (Washington, D.C.: annually), and similar reports for 1977 and 1978.

[a] Number below poverty level as a percentage of total population.

TABLE VI-20. PERCENTAGE OF MICHIGAN PERSONS LIVING IN HOUSEHOLDS WITH INCOME BELOW THE POVERTY LEVEL, BY COUNTY: CENSUS 1970 AND 1980

County	Percentage[a]		County	Percentage[a]	
	1970	1980		1970	1980
Alcona	25.4	16.5	Lake	34.1	24.3
Alger	17.4	12.9	Lapeer	10.3	7.1
Allegan	14.6	8.5	Leelanau	11.8	8.3
Alpena	16.1	10.6	Lenawee	11.2	8.5
Antrim	17.3	10.9	Livingston	7.7	4.8
Arenac	18.2	15.3	Luce	13.0	12.6
Baraga	17.5	12.0	Mackinac	17.8	13.0
Barry	13.4	8.7	Macomb	5.4	4.6
Bay	11.4	9.4	Manistee	19.6	10.7
Benzie	14.0	12.3	Marquette	14.1	9.8
Berrien	14.5	13.5	Mason	14.4	12.1
Branch	15.0	10.7	Mecosta	20.0	18.2
Calhoun	12.4	10.6	Menominee	18.1	9.8
Cass	12.9	11.0	Midland	8.1	8.0
Charlevoix	16.7	11.1	Missaukee	25.1	14.3
Cheboygan	18.9	14.8	Monroe	8.9	7.3
Chippewa	20.2	14.6	Montcalm	16.6	12.0
Clare	21.1	16.0	Montmorency	28.5	20.2
Clinton	7.6	5.7	Muskegon	12.2	12.3
Crawford	17.7	14.0	Newaygo	18.3	13.6
Delta	16.9	11.6	Oakland	6.0	5.3
Dickinson	18.0	8.7	Oceana	22.5	13.3
Eaton	8.3	5.9	Ogemaw	24.5	18.4
Emmet	17.0	10.2	Ontonagon	16.6	12.6
Genesee	9.9	10.6	Osceola	17.9	14.1
Gladwin	15.6	14.7	Oscoda	25.0	15.4
Gogebic	24.1	12.1	Otsego	13.5	9.4
Grand Traverse	11.8	8.3	Ottawa	8.0	6.0
Gratiot	14.0	11.7	Presque Isle	23.3	16.5
Hillsdale	14.6	10.8	Roscommon	22.0	12.9
Houghton	28.6	17.0	Saginaw	11.3	11.7
Huron	18.6	12.4	St. Clair	14.1	9.7
Ingham	11.3	13.2	St. Joseph	13.7	9.7
Ionia	13.5	9.2	Sanilac	19.1	11.6
Iosco	18.2	11.8	Schoolcraft	21.5	13.8
Iron	20.9	11.9	Shiawassee	11.1	7.9
Isabella	20.7	18.9	Tuscola	13.9	9.7
Jackson	11.0	9.3	Van Buren	16.7	13.5
Kalamazoo	10.6	10.7	Washtenaw	10.5	11.0
Kalkaska	27.1	14.4	Wayne	12.3	14.3
Kent	11.1	8.7	Wexford	18.6	12.4
Keweenaw	27.6	13.2	MICHIGAN	9.4	10.4

SOURCE: Bureau of the Census, special release.

a. Based on 1969 and 1979 incomes.

TABLE VI-16. PREVIOUS YEAR'S MONEY INCOME SIZE DISTRIBUTION AMONG HOUSEHOLDS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: 1978, 1979 AND 1980

Income class: 1978	Income class: 1979 and 1980	March 1979			March 1980			March 1981		
		Inside central city	Outside central city	Total	Inside central city	Outside central city	Total	Inside central city	Outside central city	Total
					Detroit, number of households in thousands					
Under $4,000	Under $5,000	59	53	112	108	75	183	111	n.a.	182
4,000-6,999	5,000-9,999	65	67	132	89	80	169	82	n.a.	167
7,000-9,999	10,000-14,999	29	47	76	52	96	148	45	n.a.	141
10,000-11,999	15,000-19,999	23	36	59	55	117	172	55	n.a.	159
12,000-14,999	20,000-24,999	34	69	103	60	151	211	30	n.a.	163
15,000-17,499	25,000-29,999	44	69	113	26	128	154	38	n.a.	171
17,500-19,999	30,000-34,999	42	86	128	20	104	124	21	n.a.	137
20,000-24,999	35,000-39,999	59	127	186	24	84	108	30	n.a.	107
25,000-29,999	40,000-49,999	32	116	148	17	109	126	22	n.a.	119
30,000-49,999	50,000-74,999	53	226	279	6	56	62	9	n.a.	95
50,000 and over	75,000 and over	6	79	84	-	12	12	0	n.a.	20
Total	Total	446	974	1,421	457	1,012	1,470	445	n.a.	1,461

TABLE VI-16. PREVIOUS YEAR'S MONEY INCOME SIZE DISTRIBUTION AMONG HOUSEHOLDS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN ALL U.S. STANDARD METROPOLITAN STATISTICAL AREAS: 1978, 1979 AND 1980

Income class: 1978	Income class: 1979 and 1980	March 1979			March 1980			March 1981		
		Inside central city	Outside central city	Total	Inside central city	Outside central city	Total	Inside central city	Outside central city	Total
		U.S., number of households in thousands								
Under $4,000	Under $5,000	3,120	2,004	5,124	3,918	2,593	6,511	3,703	2,330	6,032
4,000-6,999	5,000-9,999	3,121	2,512	5,634	4,403	3,834	8,237	4,310	3,827	8,136
7,000-9,999	10,000-14,999	2,763	2,653	5,416	3,949	4,312	8,261	3,781	4,109	7,890
10,000-11,999	15,000-19,999	1,678	1,846	3,524	3,216	4,193	7,409	3,268	4,012	7,280
12,000-14,999	20,000-24,999	2,309	2,528	4,837	2,721	4,088	6,809	2,711	4,136	6,846
15,000-17,499	25,000-29,999	1,932	2,437	4,369	1,910	3,498	5,408	2,021	3,501	5,522
17,500-19,999	30,000-34,999	1,530	2,257	3,787	1,181	2,470	3,652	1,485	2,792	4,277
20,000-24,999	35,000-39,999	2,440	4,150	6,596	749	1,640	2,389	977	1,999	2,976
25,000-29,999	40,000-49,999	1,627	3,057	4,684	832	1,891	2,723	1,128	2,427	3,555
30,000-49,999	50,000-74,999	2,204	4,778	6,982	623	1,347	1,970	818	1,890	2,708
50,000 and over	75,000 and over	634	1,213	1,847	201	481	682	270	580	850
Total	Total	23,363	29,436	52,799	23,705	30,346	54,051	24,473	31,599	56,072

SOURCE: Bureau of the Census, Current Population Reports, Consumer Income, Series P-60, nos. 121, 126, and 132 (Washington, D.C., annually).

NOTE: The surveys were conducted in March 1979, 1980, and 1981. The income data pertain to 1978, 1979, and 1980. Median income is that of the middle household in a ranking of households, highest to lowest, in income. Mean income is the arithmetic average, that is, total income received by all households divided by the number of households. A household consists of all persons, whether or not related, who occupy a house, an apartment, or other group of rooms, or a room, which constitutes a housing unit. Standard error is a measure of sampling variability, that is, of the variations that occurred by chance because a sample rather than the whole population was surveyed. The chances are about 68 out of 100 that an estimate from the survey differs from what the complete census figure would have been by less than the standard error.

TABLE VI-21. MEDIAN FAMILY INCOME IN MICHIGAN COUNTIES: CENSUS 1970 AND 1980

County	Income[a]		County	Income[a]	
	1970	1980		1970	1980
Alcona	$ 5,842	$12,301	Lake	$ 6,000	$11,210
Alger	8,014	16,354	Lapeer	10,388	22,984
Allegan	9,309	20,162	Leelanau	8,278	17,975
Alpena	8,765	17,228	Lenawee	10,027	20,825
Antrim	8,043	16,174	Livingston	11,551	26,339
Arenac	8,320	15,016	Luce	8,974	15,327
Baraga	8,045	15,598	Mackinac	7,273	14,985
Barry	9,704	20,651	Macomb	13,110	26,666
Bay	10,408	22,034	Manistee	8,365	17,281
Benzie	7,760	15,435	Marquette	8,562	19,492
Barrien	10,056	19,166	Mason	8,476	16,824
Branch	9,325	18,535	Mecosta	7,902	16,023
Calhoun	10,789	20,789	Menominee	7,703	16,380
Cass	9,781	18,548	Midland	11,618	23,598
Charlevoix	8,535	16,896	Missaukee	6,820	13,953
Cheybogan	7,660	15,203	Monroe	11,398	23,281
Chippewa	7,131	14,987	Montcalm	8,526	16,942
Clare	7,547	13,231	Montmorency	5,851	11,995
Clinton	11,014	23,368	Muskegon	9,757	18,716
Crawford	7,930	14,154	Newaygo	8,121	16,468
Delta	8,779	17,668	Oakland	13,826	28,807
Dickinson	8,316	17,094	Oceana	8,000	16,334
Eaton	11,423	24,574	Ogemaw	6,545	12,270
Emmet	8,610	18,384	Ontonagon	8,421	15,984
Genesee	11,255	23,717	Osceola	7,961	14,937
Gladwin	8,157	14,678	Oscoda	6,411	12,922
Gogebic	7,236	13,683	Otsego	9,413	16,941
Grand Traverse	9,542	19,325	Ottawa	10,445	22,059
Gratiot	8,891	18,334	Presque Isle	7,889	15,244
Hillsdale	8,895	17,512	Roscommon	6,895	12,474
Houghton	6,300	14,398	Saginaw	10,878	22,126
Huron	7,785	16,397	St. Clair	10,125	21,119
Ingham	11,193	21,921	St. Joseph	9,686	18,609
Ionia	9,578	20,037	Sanilac	8,583	16,629
Iosco	7,165	13,649	Schoolcraft	7,692	14,670
Iron	7,443	14,532	Shiawassee	10,540	21,737
Isabella	9,207	18,318	Tuscola	9,558	20,583
Jackson	10,726	21,364	Van Buren	8,735	17,700
Kalamazoo	11,037	22,211	Washtenaw	12,294	25,465
Kalkaska	6,686	15,691	Wayne	11,351	22,134
Kent	10,692	21,530	Wexford	8,024	15,884
Keweenaw	4,809	11,705	MICHIGAN	11,032	22,108

SOURCE: Bureau of the Census, special release.

a. Figures pertain to incomes received during 1969 and 1979.

TABLE VI-22. CONSUMER PRICE INDEXES FOR WAGE EARNERS AND CLERICAL WORKERS IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND THE URBAN UNITED STATES BY ITEM, ANNUAL AVERAGES: 1978-1982

Items	1978		1979		1980		1981		1982	
	Detroit	United States	Detroit	United States	Detroit	United States	Detroit	United States	Detroit	United States
All items	194.1	195.3	218.7	217.7	252.1	247.0	273.1	272.3	284.9	288.6
Food	206.9	211.2	229.0	234.7	247.4	255.3	267.0	274.9	277.5	285.8
Food at home	205.0	209.9	228.3	232.5	248.8	251.2	267.8	269.3	280.3	278.3
Cereals & bakery products	209.9	200.5	230.0	220.8	257.3	246.9	279.7	270.5	291.7	282.1
Meats, poultry, fish, eggs	197.4	204.0	228.6	233.8	238.0	241.6	253.2	252.3	266.2	261.8
Dairy products	190.1	185.8	221.7	207.6	244.5	228.0	256.1	243.6	260.4	246.3
Fruits and vegetables	195.8	211.8	209.7	228.3	227.4	245.1	262.5	273.2	284.4	287.0
Other foods at home	245.3	189.5	258.0	208.5	295.6	231.2	316.2	256.2	328.9	269.8
Food away from home	220.3	218.3	240.1	244.4	254.4	270.1	276.4	293.7	282.8	309.6
Housing	196.3	202.6	228.7	227.5	277.0	263.2	301.2	293.2	311.2	314.7
Shelter	204.1	210.3	244.8	240.3	309.4	283.1	333.4	316.0	339.2	338.7
Rent, residential	162.6	163.9	176.5	175.9	194.1	191.3	206.1	207.8	214.3	223.5
Homeownership	212.2	227.2	258.0	263.6	331.1	316.5	357.3	355.3	362.3	380.1
Fuel & other utilities	224.5	216.1	249.6	239.7	286.0	279.2	332.4	320.2	367.0	352.0
Oil, coal & bottled gas	309.0	298.3	424.7	403.6	571.3	557.2	701.1	678.9	696.6	670.7
Gas (piped) & electricity	247.0	232.6	277.4	257.6	320.0	301.2	367.3	344.8	409.7	392.8
Hsehld. furnish. & oper.	159.3	177.0	172.5	188.9	181.3	202.9	193.1	218.0	200.8	229.8
Apparel and upkeep	151.9	159.5	151.7	166.4	158.3	177.4	157.7	186.6	159.5	190.9
Men's and boy's	152.6	157.5	149.5	161.4	153.1	168.8	154.8	177.8	156.1	183.9
Women's and girl's	142.2	149.1	136.5	151.3	141.8	154.9	134.9	159.7	131.5	161.0
Footwear	148.1	163.1	158.1	176.1	155.9	190.1	157.9	200.3	159.9	205.6
Transportation	184.2	185.8	208.8	212.8	242.9	250.5	267.6	281.3	281.1	293.1
Private	183.8	185.3	208.8	212.9	242.5	250.1	266.5	279.4	280.0	290.1
Public	194.9	188.1	210.4	200.0	256.4	245.3	302.4	305.1	317.0	339.0
Medical care	251.9	219.4	276.3	240.1	296.6	267.2	316.6	295.1	340.8	326.9
Personal care	181.5	182.0	191.0	195.5	207.8	212.7	226.9	229.8	243.1	246.4
Entertainment	173.5	176.2	179.7	187.6	189.9	203.7	193.5	219.0	203.2	232.4
Other goods and services	183.0	183.2	195.6	196.3	213.5	213.6	234.0	233.3	266.3	257.0

SOURCE: Michigan Department of Management and Budget, Economic Report of the Governor (Lansing: annually).

NOTE: Annual averages of monthly figures: 1967=100.

TABLE VI-23. CONSUMER PRICE INDEX FOR THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, BY MONTH: 1965-1982

(1976 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Avg.
Urban wage earners and clerical workers													
1965	91.4	91.0	91.2	91.9	92.3	93.1	93.0	93.0	93.0	93.5	93.6	94.0	92.6
1966	94.3	94.7	95.4	95.9	96.3	96.8	96.9	97.4	97.6	98.0	98.1	98.6	96.7
1967	98.6	98.8	99.5	99.7	99.7	99.8	100.1	100.3	100.3	100.5	101.0	101.3	100.0
1968	101.5	102.1	102.9	103.1	103.5	104.3	104.7	105.0	105.5	105.9	106.3	106.6	104.3
1969	106.9	107.4	108.9	109.4	110.0	110.8	111.1	111.8	111.9	112.4	113.0	113.8	110.6
1970	114.1	115.1	115.8	116.4	117.4	117.7	117.9	117.8	118.4	119.3	119.9	119.5	117.4
1971	120.3	120.0	120.1	120.1	120.9	121.8	121.8	122.8	122.8	122.8	123.4	123.7	121.7
1972	124.2	124.9	125.0	125.0	125.5	126.0	126.7	126.9	127.3	127.2	127.4	128.3	126.2
1973	128.5	129.7	131.1	132.4	133.4	133.7	133.8	136.8	137.3	137.9	139.0	140.0	134.5
1974	141.5	143.8	144.9	145.4	146.4	148.4	149.4	150.9	152.4	153.8	155.2	156.0	149.0
1975	155.5	156.5	157.0	157.7	158.1	159.7	160.8	161.3	162.8	163.1	163.9	164.6	160.1
1976	165.7	165.8	165.6	166.4	167.3	168.0	169.2	169.7	171.3	171.4	172.5	173.1	168.8
1977	173.8	175.1	176.8	179.0	179.3	181.0	182.5	182.6	182.8	183.1	184.5	184.4	180.4
1978	185.0	185.8	187.9	189.8	192.1	194.6	194.7	196.2	198.2	200.7	201.7	201.9	194.1
1979	204.9	208.8	211.6	213.2	214.1	215.5	219.8	222.6	223.5	226.9	230.8	232.2	218.7
1980	236.4	239.9	242.4	248.0	248.9	255.8	252.1	253.8	257.7	261.4	263.6	265.5	252.1
1981	264.4	265.5	263.6	268.0	271.3	275.9	278.9	279.1	280.2	278.2	276.4	275.1	273.1
1982	277.8	274.8	275.1	280.3	282.7	286.0	289.3	289.3	291.2	291.2	292.1	288.7	284.9
All urban consumers													
1978	185.0	185.6	188.4	190.2	192.3	194.5	194.6	195.8	197.7	200.9	202.0	202.2	194.1
1979	205.1	208.8	211.6	213.2	213.9	215.4	219.5	222.2	223.7	227.2	231.3	233.2	218.8
1980	237.2	240.4	242.9	248.2	248.4	256.7	253.7	255.1	259.5	264.3	266.4	269.7	253.5
1981	268.5	270.2	268.2	272.4	275.2	280.5	283.1	283.5	284.2	281.5	279.6	278.3	277.1
1982	280.8	277.8	278.2	283.7	285.9	289.1	289.8	292.7	294.9	295.2	296.0	292.6	288.3

SOURCE: Bureau of Labor Statistics, special release.

TABLE VI-24. ANNUAL COSTS OF A MODERATE STANDARD OF LIVING FOR A FAMILY OF FOUR IN THE DETROIT METROPOLITAN STATISTICAL AREA AND IN THE URBAN UNITED STATES, BY EXPENDITURE CATEGORY: AUTUMN 1979, 1980 AND 1981

	1979		1980		1981	
Item	Detroit	United States	Detroit	United States	Detroit	United States
Food	$ 5,005	$ 5,044	$ 5,520	$ 5,571	$ 5,886	$ 5,843
At home[a]	4,160	4,223	4,642	4,664	4,913	4,866
Away from home	845	821	878	907	973	977
Housing	4,716	4,594	5,230	5,106	5,604	5,546
Shelter[b]	3,804	3,573	4,268	3,998	4,531	4,348
Renter costs	2,233	2,340	2,408	2,533	2,546	2,732
Homeowner costs	4,327	3,983	4,888	4,486	5,192	4,866
Furnishings and operations	912	1,021	962	1,108	1,073	1,199
Transportation[c]	1,799	1,851	2,042	2,116	2,266	2,372
Automobile owners	1,872	1,949	2,122	2,225	2,354	2,488
Clothing	1,195	1,235	1,239	1,292	1,199	1,333
Personal care	452	433	501	471	537	508
Medical care	1,280	1,176	1,366	1,303	1,460	1,443
Other family consumption[d]	1,022	1,021	1,102	1,109	1,163	1,196
Total consumption	15,469	15,353	17,000	16,969	18,115	18,240
Other items[e]	881	877	958	957	1,017	1,021
Personal income taxes	3,196	3,031	3,789	3,781	4,399	4,443
Other payroll taxes[f]	1,275	1,256	1,421	1,427	1,677	1,703
TOTAL	20,821	20,517	23,168	23,134	25,208	25,407

SOURCE: Bureau of Labor Statistics, News, 29 April 1979, USDL release 79-305, Table 3; 30 April 1980, USDL release 80-278; 16 April 1982, USDL 82-139, Table 2 (Washington, D.C.: periodically).

NOTE: Family of four comprised of husband, 38, working full time, wife in the labor force, daughter, 8, and son, 13.

a. Nutritionally adequate diet varied according to different tastes indifferent regions.

b. Weighted average of homeowner costs (75 percent) and renter costs (25 percent). Renter costs include heat and utilities; homeowner costs include heat and utilities and payments on 6-year-old mortgages.

c. Assumed 100 percent automobile ownership in areas of less than 1.4 million population.

d. Reading, recreation, tobacco products, alcoholic beverages, education, and miscellaneous expenditures.

e. Gifts and contributions, life insurance, and occupational expenses.

f. Social Security and disability.

TABLE VI-25. ANNUAL COSTS OF AN INTERMEDIATE STANDARD OF LIVING FOR A RETIRED COUPLE IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN THE URBAN UNITED STATES, BY EXPENDITURE CATEGORY: AUTUMN 1979, 1980 AND 1981

Item	1979		1980		1981	
	Detroit	United States[a]	Detroit	United States[a]	Detroit	United States[a]
Food	2,467	2,507	2,733	2,772	2,908	2,898
At home[b]	2,201	2,231	2,457	2,467	2,602	2,569
Away from home	266	276	276	305	306	329
Housing	2,938	2,862	3,182	3,106	3,525	3,393
Shelter	1,929	1,845	2,118	2,001	2,338	2,198
Renter costs[c]	1,955	1,824	2,108	1,975	2,229	2,130
Homeowner costs	1,915	1,857	2,123	2,015	2,396	2,235
Furnishings and operations	1,009	1,017	1,064	1,104	1,187	1,194
Transportation	886	820	1,017	950	1,129	1,073
Automobile owners[d]						
Clothing	374	378	388	396	375	409
Personal care	237	247	263	269	282	290
Medical care	846	842	942	950	1,070	1,091
Other family consumption[e]	421	390	453	424	481	457
Total consumption	8,169	8,047	8,978	8,866	9,770	9,611
Other items[f]	523	515	575	568	625	615
TOTAL costs	8,692	8,562	9,553	9,435	10,395	10,226

SOURCE: Bureau of Labor Statistics, News, 25 August 1980, 10 August 1981 and 30 July 1982 (Washington, D.C.:periodically), USDL release 80-517, Table 2.

NOTE: The retired couple is assumed to be a husband, aged 65 or older, and his wife. They are assumed to be self-supporting and living in an urban area; they are in reasonably good health and take care of themselves.

a. Weighted average of 56 urban areas.
b. Nutritionally adequate diet varied according to different tastes in different regions.
c. Weighted average of homeowner costs (65 percent) and renter costs (35 percent). Renter costs included heat and utilities; homeowners costs include heat and utilities and payments on 6-year-old mortgages.
d. Assumed 100 percent automobile ownership in areas of more than 1.4 million population.
e. Reading, recreation, tobacco products, alcoholic beverages, and miscellaneous expenditures.
f. Gifts and contribution.

TABLE VI-26. TREND IN ANNUAL TOTAL BUDGET COSTS AT THREE LEVELS FOR A FAMILY OF FOUR AND A RETIRED COUPLE IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA AND IN THE URBAN UNITED STATES: 1971-1981

Year	Family of four			Retired couple		
	Low	Medium	High	Low	Medium	High
			Detroit			
1971	$ 7,074	$10,754	$15,665	$ 3,298	$ 4,784	$ 7,756
1972	7,271	11,502	16,749	3,439	5,006	8,104
1973	8,246	12,810	18,591	3,780	5,484	8,458
1974	9,138	14,390	21,142	4,267	6,116	9,489
1975	9,501	15,701	22,947	4,506	6,515	10,077
1976	9,865	16,514	24,226	4,661	6,731	10,465
1977	10,400	17,427	25,550	5,020	7,214	11,188
1978	11,596	19,145	28,172	5,577	7,965	12,265
1979	12,582	20,821	30,668	6,102	8,692	13,377
1980	13,939	23,168	34,268	6,734	9,553	14,634
1981	15,107	25,208	37,721	7,336	10,395	15,929
			Urban United States			
1971	7,214	10,971	15,905	3,319	4,776	7,443
1972	7,386	11,446	16,558	3,442	4,967	7,689
1973	8,181	12,626	18,201	3,763	5,414	8,043
1974	9,198	14,333	20,777	4,228	6,041	8,969
1975	9,588	15,318	22,294	4,501	6,465	9,598
1976	10,041	16,236	23,759	4,695	6,738	10,048
1977	10,481	17,106	25,202	5,031	7,198	10,711
1978	11,546	18,622	27,420	5,514	7,846	11,596
1979	12,585	20,517	30,317	6,023	8,562	12,669
1980	14,044	23,134	34,409	6,644	9,434	13,923
1981	15,323	25,407	38,060	7,226	10,226	15,078

SOURCE: Bureau of Labor Statistics, News, April 1982 (Washington, D.C.: periodically), and similar releases for previous years.

VII. SOCIAL WELFARE

The Michigan Department of Social Services, charged with the responsibility for administering the state's public welfare and related programs, conducts research and functions as the repository of relevant data. Published sources include the Annual Report and the monthly publication, Social Service Statistics.

Information related to other social welfare programs is available from annual reports of the various agencies that administer them, for example, the Social Security Administration, the Veterans Administration, and the Railroad Retirement Board.

Data for Tables VII-1 and VII-2 were drawn from the tabulation released by the Bureau of Economic Analysis in conjunction with its personal income statistics program. A more complete statement of those data is included at the beginning of chapter VI.

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TABLE VII-1. TRANSFER PAYMENTS IN MICHIGAN AND THE UNITED STATES: 1958-1981

(In millions of dollars)

Year	Michigan	United States	Michigan as a percentage of the United States
1958	1,254	25,978	4.83
1959	1,154	27,064	4.26
1960	1,207	28,940	4.17
1961	1,425	32,817	4.34
1962	1,384	33,770	4.10
1963	1,411	35,838	3.94
1964	1,459	37,430	3.90
1965	1,575	40,414	3.90
1966	1,746	44,667	3.91
1967	2,079	52,595	3.95
1968	2,346	59,920	3.92
1969	2,601	66,650	3.90
1970	3,244	80,149	4.05
1971	3,844	94,435	4.07
1972	4,322	104,681	4.13
1973	4,816	119,512	4.03
1974	5,973	141,221	4.23
1975	7,836	178,308	4.39
1976	8,131	194,273	4.19
1977	8,432	207,897	4.06
1978	8,871	223,844	3.96
1979	10,117	250,260	4.04
1980	13,443	297,237	4.52
1981	14,244	336,334	4.24

SOURCE: Bureau of Economic Analysis, Regional Economics Information System; and U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (Washington, D.C.: monthly), July 1982, Vol. 61, Table 3 and p. 29.

NOTE: See Table VII-2 for listing of items comprising transfer payments.

TABLE VII-2. TRANSFER PAYMENTS RECEIVED BY MICHIGAN AND UNITED STATES RESIDENTS, BY ITEM: 1980 AND 1981[a]

(In millions of dollars)

Item	Michigan		United States	
	1980	1981	1980	1981
Old Age, Survivors, and Disability Insurance	5,000	5,846	118,586	138,689
Railroad retirement and disability	107	118	4,812	5,304
Federal employees retirement	224	265	15,481	18,163
State and local gov't employees retirement	524	594	15,002	17,000
Medical insurance payments[b]	1,636	1,991	35,908	43,671
Workmen's compensation[c]	83	92	2,874	3,182
Black Lung	22	22	1,751	1,725
Other government disability, insurance, and retirement programs[d]	.003	.004	780	910
Total government retirement, disability, and insurance programs	7,599	8,929	250,915	286,403
Unemployment insurance payments	2,425	1,559	18,677	16,586
Educational and training assistance payments[e]	130	142	4,088	4,992
Supplemental security income	238	251	7,947	8,598
Aid to families with dependent children	1,048	1,150	12,409	13,360
Bonus value of food stamps	287	424	8,214	10,097
Other assistance payments[f]	249	258	3,162	3,207
Total income maintenance programs	1,822	2,083	31,732	35,262
Other government transfer payments[g]	71	57	1,224	919
Total governments payments to individual civilians	12,048	12,770	250,915	286,403

TABLE VII-2. TRANSFER PAYMENTS RECEIVED BY MICHIGAN AND UNITED STATES RESIDENTS, BY ITEM: 1980 AND 1981 (cont.)

(In millions of dollars)

Item	Michigan 1980	Michigan 1981	United States 1980	United States 1981
Pensions, retirement pay, terminal leave, and mustering out pay of military personnel	486	531	23,627	26,317
Educational payments to veterans and their dependents and survivors	61	59	2,065	1,945
Other government payments to veterans[h]	42	40	1,451	1,541
Payments to nonprofit institutions	430	435	10,301	10,491
Business transfer payments	376	409	8,878	9,637
Total transfer payments	13,443	14,224	297,237	336,334

SOURCE: Bureau of Economic Analysis, Regional Economic Information System.

a. Estimates for 1969-81 have been revised to reflect the 1980 comprehensive NIPA revisions.
b. Medicare.
c. Compensation to disabled government employees.
d. Payments to beneficiaries of state disability programs and beneficiares of the Panama Canal Construction Annuity Act.
e. National Science Foundation fellowships; other federal fellowships; subsistence of state marine school cadets; higher education loans-interest subsidy payments; basic education opportunity grants; area redevelopment payments, Manpower Development, Training and Assistance Act payments; and Job Corps payments.
f. Refugee Assistance payments (includes Cuban and Southeast Asia refugees), Civilian War Assistance and Enemy Aliens Act payments, foster home care in public facilites, special federal payments to selected individuals, and payments for earned income tax credit.
g. Bureau of Indian Affairs payments, education exchange, and payments for Alaska Native Claims Settlement Act.
h. Payments to paraplegics, for automobiles for disabled veterans, to war orphans, to children of disabled veterans, to prisoners of war; veterans' aid; and veterans' bonus payments by state and local government.

TABLE VII-3. ESTIMATED NUMBER AND PROPORTION OF THE POPULATION AGED 65 AND OLDER RECEIVING OASDI CASH BENEFITS AND SSI PAYMENTS: MICHIGAN AND THE UNITED STATES: DECEMBER 1968-1979

	OASDI[a]		SSI[b]		Both	
Year	Michigan	United States	Michigan	United States	Michigan	United States
			Number (in thousands)			
1968	667	16,490	38	2,024	--	1,169
1969	679	16,884	38	2,072	--	1,181
1970	695	17,374	40	2,081	--	1,243
1971	710	17,900	41	2,024	--	1,127
1972	724	18,482	41	1,933	--	1,276
1973	747	19,269	38	1,820	--	1,189
1974	763	19,834	49	2,286	--	1,483
1975	782	20,449	52	2,307	36	1,603
1976	799	21,043	47	2,148	33	1,495
1977	818	21,731	54	2,353	38	1,645
1978	837	22,365	53	2,311	37	1,624
1979	858	22,809	52	2,269	37	1,036
			Proportion[c]			
1968	874	846	49	104	27	58
1969	897	854	50	105	39	61
1970	911	848	45	101	30	63
1971	915	853	53	96	31	62
1972	918	865	52	90	33	61
1973	941	884	48	84	31	56
1974	946	888	61	103	40	68
1975	951	901	63	102	44	71
1976	947	906	56	92	39	64
1977	952	913	62	99	44	69
1978	953	918	60	95	43	67
1979	967	925	59	92	42	64

SOURCE: Social Security Administration, Social Security Bulletin, Annual Statistical Supplement (Washington, D.C.: monthly).

a. Old age, survivors, disability, and health insurance program of the federal government (Social Security).

b. For 1968-1973, data refer to old age assistance program; beginning January 1974, the supplemental security income program superseded the old age assistance program in the 50 states and District of Columbia.

c. Number per 1,000 population aged 65 and over.

TABLE VII-4. AMOUNT OF OASDI CASH BENEFITS PAID IN MICHIGAN AND THE UNITED STATES, BY TYPE OF PROGRAM: 1976-1981

(In millions of dollars)

Program	1976	1977	1978	1979*	1980*	1981*
Michigan						
Total cash benefits paid	3,188	3,521	3,834	4,199	5,000	5,850
OASI	2,728	3,010	3,284	3,609	4,327	5,100
DI	460	511	550	590	670	745
Old age & survivors insurance	2,728	3,010	3,284	3,609	4,327	5,100
Monthly benefits	2,715	2,998	3,271	--	--	--
Retired Workers	1,724	1,913	2,103	2,327	2,809	3,340
Dependents	207	223	247	271	322	380
Survivors	778	857	916	1,007	1,196	1,380
Special age-72	5	5	4	4	3	5
Lump sum death payments	13	12	13	--	--	--
Disability insurance:						
Monthly benefits	460	511	550	590	670	745
Disabled workers	376	420	452	484	553	620
Dependents	84	91	98	105	117	125
United States						
Total cash benefits paid	75,665	84,576	92,865	101,229	120,427	140,995
OASI	65,699	73,113	80,352	87,801	104,916	123,685
DI	9,966	11,463	12,513	13,428	15,437	17,200
Old age & survivors insurance	65,699	73,113	80,352	87,801	104,916	123,685
Monthly benefits	65,366	72,801	80,008	87,461	--	--
Retired workers	43,057	48,134	53,255	58,342	70,359	83,615
Dependents	4,837	5,300	5,904	6,374	7,547	8,865
Survivors	17,297	19,210	20,707	22,745	27,010	31,205
Special age-72	174	157	142	131	119	110
Lump sum death payments	332	312	344	340	--	--
Disability insurance:						
Monthly benefits	9,966	11,463	12,513	13,428	15,437	17,200
Disabled workers	8,190	9,456	10,315	11,090	12,817	14,380
Dependents	1,776	2,006	2,198	2,338	2,621	2,820

SOURCE: Social Security Administration, Social Security Bulletin, Statistical Summaries (Washington, D.C.).

*: Lump sum death payments are not being separated.

TABLE VII-5. NUMBER OF MONTHLY OASDI BENEFITS IN CURRENT-PAYMENT STATUS, BY TYPE OF BENEFICIARY, MICHIGAN AND THE UNITED STATES: 1971-1980

(In thousands)

			Spouses of		Children of				Widows	
Year	Retired workers	Disabled workers	Retired workers	Disabled workers	Retired workers	Deceased workers	Disabled workers	Widowed parents	and widowers	Total[a]
					Michigan					
1971	544	66	111	12	21	116	38	21	143	1,088
1972	561	75	111	14	21	119	44	22	148	1,128
1973	585	84	112	15	22	122	48	23	153	1,175
1974	603	95	112	17	22	122	53	23	157	1,213
1975	625	105	113	19	23	123	59	24	161	1,258
1976	643	112	114	19	23	123	62	24	164	1,291
1977	662	116	115	20	25	120	62	24	168	1,317
1978	678	116	115	19	23	115	60	23	171	1,325
1979	689	115	114	19	23	115	59	23	173	1,334
1980	710	113	115	18	23	112	56	23	176	1,349
					United States					
1971	13,927	1,648	2,698	312	562	2,775	971	535	3,366	27,292
1972	14,555	1,832	2,734	350	582	2,845	1,088	540	3,509	28,476
1973	15,365	2,016	2,808	381	613	2,912	1,161	572	3,656	29,869
1974	15,958	2,237	2,826	412	619	2,893	1,263	574	3,770	30,853
1975	16,588	2,489	2,867	453	643	2,919	1,411	582	3,889	32,085
1976	17,165	2,670	2,896	474	653	2,903	1,480	579	3,995	33,023
1977	17,821	2,838	2,961	495	695	2,860	1,528	583	4,120	34,079
1978	18,358	2,880	2,980	492	661	2,780	1,497	576	4,212	34,586
1979	18,591	2,878	2,966	483	645	2,745	1,466	567	4,260	34,739
1980	19,168	2,863	2,987	468	633	2,668	1,403	560	4,354	35,220

SOURCE: Social Security Administration, Social Security Bulletin, December 1971 through December 1981 (Washington, D.C.: monthly).

a. Total is not identical sum: Parents aid special age - 72 beneficiaries are not listed.

TABLE VII-6. NUMBER AND AVERAGE MONTHLY BENEFITS OF RETIRED WORKERS UNDER OASDI, MICHIGAN AND THE UNITED STATES: DECEMBER 1971-1981

Year	Number (In thousands)		Amount	
	Michigan	United States	Michigan	United States
1971	544	13,927	144.61	132.17
1972	561	14,555	177.18	162.35
1973	585	15,365	180.80	166.42
1974	603	15,959	204.17	188.21
1975	625	16,588	224.42	207.18
1976	643	17,165	243.08	224.86
1977	662	17,832	262.11	242.98
1978	678	18,358	n.a.	263.19
1979	689	18,970	n.a.	294.27
1980	710	19,583	n.a.	341.41
1981	n.a.	20,195	n.a.	385.97

SOURCE: Social Security Administration, Social Security Bulletin, December 1970 through December 1981 (Washington, D.C.: monthly).

n.a.: not available.

TABLE VII-7. NUMBER OF RECIPIENTS AND AVERAGE MONTHLY CASH BENEFITS UNDER AID TO FAMILIES WITH DEPENDENT CHILDREN, MICHIGAN AND THE UNITED STATES: DECEMBER 1971-1980

Year	Number (In thousands)		Amount	
	Michigan	United States	Michigan	United States
1971	507	10,653	63.28	52.30
1972	590	11,069	67.96	54.10
1973	600	10,815	74.03	56.95
1974	642	11,006	80.14	64.85
1975	676	11,383	88.43	71.72
1976	653	1[illegible]184	92.28	75.48
1977	623	10,761	99.08	79.46
1978	620	10,325	115.80	86.33
1979	638	10,316	122.37	93.09
1980	753	11,101	127.88	99.61

SOURCE: Social Security Administration, Social Security Bulletin, (Washington, D.C.: monthly).

TABLE VII-8. NUMBER OF RECIPIENTS AND AVERAGE MONTHLY CASH BENEFITS UNDER GENERAL ASSISTANCE, MICHIGAN AND THE UNITED STATES: DECEMBER 1970-1980

Year	Number (in thousands)		Amount	
	Michigan	United States	Michigan	United States
1971	85	982	72.79	64.80
1972	63	865	96.13	72.10
1973	49	700	122.26	81.95
1974	67	851	121.92	96.35
1975	76	977	130.66	102.07
1976	66	905	143.85	116.54
1977	51	820	147.24	124.34
1978	53	766	161.29	128.11
1979	84	885	161.33	123.31
1980	123	986	155.07	129.84

SOURCE: Social Security Administration, Social Security Bulletin, June 1973 through June 1982 (Washington, D.C.: monthly).

TABLE VII-9. SUPPLEMENTAL SECURITY INCOME FOR THE AGED, FEDERALLY ADMINISTRATED PAYMENTS, MICHIGAN AND THE UNITED STATES: DECEMBER 1970-1981

Year	(in thousands) Number		Amount of payment	
	Michigan	United States	Michigan	United States
1971	41	2,024	80.10	77.50
1972	41	1,934	70.68	7[illegible].95
1973	38	1,820	73.85	76.15
1974	49	2,286	94.62	91.09
1975	52	2,307	98.72	90.93
1976	47	2,148	100.77	94.35
1977	45	2,051	107.45	96.62
1978	43	1,968	116.29	100.43
1979	41	1,872	127.05	122.65
1980	38	1,808	132.26	126.84
1981	34	1,678	131.36	--

SOURCE: Social Security Administration, Social Security Bulletin, April 1975 through April 1982 (Washington, D.C.: monthly).

NOTE: For 1970 to 1973, data refer to old age assistance program; beginning in January 1974, the supplemental security income program superseded the old age assistance program in the 50 states and District of Columbia.

TABLE VII-10. SUPPLEMENTAL SECURITY INCOME FOR THE BLIND, MICHIGAN AND THE UNITED STATES: DECEMBER 1970-1981

Year	Number (in thousands)		Amount[a]	
	Michigan	United States	Michigan	United States
1970	1.4	81.0	$ 106.45	$ 104.35
1971	1.6	80.3	122.08	106.39
1972	1.7	79.8	114.27	112.85
1973	1.7	77.9	113.15	112.00
1974	1.7	74.6	143.64	140.57
1975	1.7	74.5	149.05	146.57
1976	1.6	76.4	148.37	152.77
1977	1.7	77.4	159.41	159.20
1978	1.7	77.1	170.85	164.40
1979	1.8	77.3	188.12	212.27
1980	1.9	78.4	206.88	213.23
1981	1.9	78.6	221.29	227.70

TABLE VII-11. NUMBER OF RECIPIENTS AND AVERAGE MONTHLY CASH BENEFITS UNDER SUPPLEMENTAL SECURITY INCOME FOR THE PERMANENTLY AND TOTALLY DISABLED, MICHIGAN AND THE UNITED STATES: DECEMBER 1970-1981

Year	Number (in thousands)		Amount[a]	
	Michigan	United States	Michigan	United States
1970	30	935	$ 105.75	$ 97.65
1971	38	1,068	111.29	102.25
1972	48	1,168	111.29	106.15
1973	54	1,275	121.56	109.75
1974	60	1,635	147.05	144.28
1975	66	1,933	151.38	141.15
1976	68	2,012	153.66	145.50
1977	71	2,109	160.53	150.36
1978	73	2,172	175.07	154.82
1979	74	2,201	195.35	181.71
1980	74	2,256	209.72	197.90
1981	75	2,262	227.77	214.49

SOURCE: Social Security Administration Social Security Bulletin, Annual Statistical Supplement (Washington, D.C.: annually).

a. Amounts combined: federal and state payments.

TABLE VII-12. ESTIMATED EXPENDITURES IN MICHIGAN BY THE VETERANS ADMINISTRATION: FISCAL YEARS 1975-1981

(In millions of dollars)

Item	1975	1976	1977	1978	1979	1980	1981
Compensation and pensions	245.3	264.7	282.7	296.1	315.8	334.4	363.0
Vocational rehabilitation and education	171.9	204.0	124.8	101.0	77.0	67.5	67.7
Direct loans	.1	.1	.1	.09	.0	.11	.15
Insurance & indemnities	29.4	26.8	30.3	29.4	32.7	34.6	30.0
Hospital and domiciliary construction	3.9	2.2	1.2	2.1	1.8	4.6	3.1
Administrative costs and other benefits	95.7	108.9	122.4	135.7	149.2	159.2	170.5
Total	546.4	606.6	561.6	564.3	576.6	599.9	634.5

SOURCE: Administrator of Veterans Affairs, Annual Report, (Washington, D.C.: annually).

TABLE VII-13. BENEFITS PAID IN MICHIGAN UNDER THE RAILROAD RETIREMENT AND UNEMPLOYMENT INSURANCE ACTS, BY CLASS OF BENEFIT: FISCAL YEARS 1968-1982

(In thousands of dollars)

Year	Retirement	Survivor	Unemployment	Sickness	Total
1968	25,455	8,562	948	843	35,807
1969	27,594	9,461	995	1,464	39,513
1970	28,007	10,079	957	1,510	40,553
1971	33,828	11,520	1,974	1,494	48,817
1972	37,395	12,514	2,630	1,226	53,766
1973	42,249	14,961	1,681	1,095	59,988
1974	44,761	16,658	1,010	905	63,334
1975	50,429	19,381	2,047	952	72,809
1976	55,276	22,753	4,625	2,692	85,346
1977	59,764	24,575	3,419	2,709	90,466
1978	62,536	25,733	4,042	2,517	94,829
1979	67,127	27,326	2,762	2,381	99,596
1980	73,702	30,172	9,260	2,570	115,704
1981	81,965	34,195	9,575	2,109	127,844
1982	89,449	36,367	10,510	1,965	138,391

SOURCE: Railroad Retirement Board, Annual Report (Chicago, IL: annually).

TABLE VII-14. NUMBER OF FOOD STAMP RECIPIENTS IN MICHIGAN, FISCAL YEARS: 1973-1982

(Monthly average number of persons)

Year	Total	In public assistance households	In nonpublic assistance households
1973	539,715	427,375	112,340
1974	533,225	429,516	103,709
1975	642,412	473,839	168,573
1976	681,979	500,356	181,623
1977	631,748	490,984	140,764
1978	567,692	441,412	126,280
1979	633,550	480,760	152,790
1980	813,102	588,328	224,774
1981	941,532	720,490	221,042
1982	982,930	739,049	243,881

SOURCE: Michigan Department of Social Services, Data Reporting Section, special release.

TABLE VII-15. VALUE OF FOOD STAMPS ISSUED IN MICHIGAN, FISCAL YEARS: 1973-1982

Year	Total value[a] ($000)	Purchase value[b] ($000)	Bonus value[c] ($000)	Percentage of bonus value to total value	Average monthly bonus per person
1973	157,637	91,482	66,155	42.0	10.21
1974	180,063	100,310	79,753	44.3	12.46
1975	257,212	133,869	123,343	48.0	16.00
1976	299,442	155,765	143,677	48.0	17.56
1977	285,500	153,314	132,186	46.3	17.46
1978	270,400	145,575	124,925	46.2	18.36
1979	210,000	--	210,000	--	27.62
1980	262,764	--	262,764	--	26.93
1981	393,972	--	393,972	--	34.87
1982	448,920	--	448,920	--	38.06

SOURCE: Michigan Department of Social Services, Data Reporting Section, special release.

a. Available for food purchases.

b. Purchase requirement for recipients. New federal regulations eliminate the purchase requirement effective 1 January 1979.

c. Difference between value and purchase requirement. The change in federal regulations effective fiscal year 1979 also eliminates the distinction between total value of coupons and the bonus value.

TABLE VII-16. MEDICAL ASSISTANCE (MEDICAID) RECIPIENTS AND EXPENDITURES FOR MEDICAL ASSISTANCE IN MICHIGAN, BY TYPE OF CASE AND TYPE OF SERVICE, FISCAL YEARS: 1980 AND 1981

Classification	Year	Recipients[a]	Expenditures	Average per recipient[b]
		Type of case		
Age 65 and over	1980	64,411	277,313,180	358.78
	1981	64,042	306,248,121	398.50
Blind	1980	1,067	3,581,030	279.70
	1981	1,135	4,440,431	325.97
Disabled	1980	70,751	355,293,623	418.48
	1981	73,249	454,250,774	516.79
Dependent children under age 21	1980	162,322	172,563,115	88.59
	1981	186,220	203,863,236	91.23
Adults in families with dependent children	1980	127,328	253,018,272	165.60
	1981	153,147	318,675,232	173.40
Other children under age 21	1980	2,576	9,911,777	320.69
	1981	2,505	10,356,239	344.55
		Type of service		
Inpatient general hospital services	1980	17,418	352,511,023	1,686.50
	1981	18,558	448,683,175	2,014.81
Inpatient mental hospital services	1980	1,002	24,060,422	2,001.87
	1981	932	26,376,944	2,359.09
Skilled nursing home services	1980	12,964	133,824,028	860.20
	1981	7,968	91,266,139	954.51
Intermediate care services:	1980	18,337	263,064,777	1,195.52
	1981	24,374	374,326,631	1,279.82
Mentally retarded	1980	2,863	101,870,244	2,965.57
	1981	3,334	156,124,014	3,902.91
Other	1980	15,474	161,194,533	868.07
	1981	21,040	218,202,617	864.23
Physicians' services	1980	225,896	139,113,192	51.32
	1981	254,055	156,187,143	51.23
Dental services	1980	28,472	22,398,946	65.56
	1981	34,025	24,668,733	60.42
Other practitioners' services	1980	17,560	8,267,961	39.24
	1981	25,260	9,632,344	31.78
Outpatient hospital services	1980	69,984	23,334,114	27.79
	1981	82,211	24,127,710	24.46
Clinic services	1980	3,509	1,280,185	30.40
	1981	4,111	11,313,330	26.62
Lab & radiological	1980	34,723	13,473,797	32.34
	1981	40,832	16,142,186	32.94
Home health services	1980	1,018	2,917,798	238.75
	1981	1,273	3,662,626	239.68
Prescribed drugs	1980	257,816	69,755,452	22.55
	1981	274,457	73,286,864	22.25
Family planning services	1980	29,281	7,810,148	22.23
	1981	43,329	11,708,622	22.52
Other care	1980	11,254	9,869,154	73.08
	1981	31,632	36,451,586	96.03
TOTAL	1980	428,455	1,071,680,997	208.44
	1981	480,299	1,297,834,033	825.18

SOURCE: Michigan Department of Social Services, *Medical Assistance (Medicaid) Fiscal Year 1979* (Lansing: 1980), Table 1, and *Medical Assistance (Medicaid) Fiscal Year 1980* (Lansing: 1981), Table 1.

[a] The sum of recipients by type of service adds to more than the total because more than one type of service was provided to many recipients.

[b] Number of recipients and average per recipient values are monthly averages.

TABLE VII-17. SUMMARY OF MICHIGAN PUBLIC ASSISTANCE: JANUARY 1981 AND 1982

Program	1981	1982	Percentage change
	Persons or cases		
Aid to families with dependent children			
Number of families			
Unemployed parent	36,025	40,053	+11.2
Regular segment	206,857	192,886	-6.8
Number of recipients			
Unemployed parent	152,005	166,357	+9.4
Regular segment	602,026	564,382	-6.3
General assitance			
Cases with children	5,382	6,216	+15.5
Cases without children	103,202	105,322	+2.1
Number of recipients	126,980	133,044	+4.8
Emergency assistance			
Families receiving AFDC	3,859	4,080	+5.7
Families not receiving AFDC	1,395	1,325	-5.2
Recipients receiving AFDC	14,103	14,376	+1.9
Recipients not receiving AFDC	5,154	4,717	-8.5
Food Stamps			
Households receiving other public assistance	267,428	279,742	+4.2
Households not receiving other public assistance	110,248	109,669	-0.5
Recipients receiving other public assistanc	698,924	739,539	+5.8
Recipients not receiving other public assistance	227,786	232,285	+2.0
Total recipients of money payments	1,103,066	1,088,932	-1.3
	Amounts ($1,000)		
Aid to families with dependent children			
Unemployed parent	16,223.6	18,889.9	+16.4
Regular segment	77,337.3	72,926.9	-5.4
General assistance	19,528.2	19,830.6	+1.5
Emergency assistance			
Receiving AFDC	924.8	1,057.4	+14.3
Not receiving AFDC	411.6	461.2	+12.0

TABLE VII-17. SUMMARY OF MICHIGAN PUBLIC ASSISTANCE: JANUARY 1981 AND 1982 (cont.)

Program	1981	1982	Percentage change
Amounts ($1,000) (cont.)			
Food stamps value	34,076.0	37,826.1	+11.0
Cuban relief	59.7	85.8	+43.7
Indochinese relief	247.6	328.1	+32.5
Medical assistance	85,880.6	106,965.1	+24.6
Total amount of money payments	148,501.6	150,992.1	+1.7
Amounts per family or recipient			
Aid to families with dependent children			
Per family			
Unemployed parent	450.34	471.62	+4.7
Regular segment	373.87	378.08	+1.1
Per recipient			
Unemployed parent	106.73	113.55	+6.4
Regular segment	128.46	129.22	+0.6
General assistance			
Per case	179.84	177.79	-1.1
Per recipient	153.79	149.05	-3.1
Emergency assistance			
Per case	254.27	280.96	+10.5
Per recipient	69.40	79.54	+14.6
Food stamps			
Bonus per household	90.23	97.39	+7.9
Bonus per recipient	36.77	38.92	+5.8
Total expenditures per family recipient	134.63	138.66	+3.0

SOURCE: Michigan Department of Social Services, *Assistance Payments Statistics* (Lansing: monthly), January 1982, Table 1.

TABLE VII-18. ERROR RATES FOR AID TO FAMILIES WITH DEPENDENT CHILDREN: 1977-1981

(Percentage of total cases)

Reporting period	Source		Type			Total
	Agency	Client	Ineligible	Overpayment	Underpayment	
Jan-Jun 1977	16.3	12.1	4.3	16.1	8.1	28.4
Jul-Dec 1977	13.8	13.8	4.4	17.2	7.3	29.0
Jan-Jun 1978	14.4	13.3	4.5	16.5	6.7	27.6
Jul-Sep 1978	12.6	14.0	5.2	15.0	6.4	26.6
Oct 1978-Mar 1979	18.1	15.1	4.6	19.7	8.9	33.2
Apr-Sep 1979	13.6	15.1	4.7	17.1	7.0	28.8
Oct 1979-Mar 1980	16.3	12.9	4.3	16.3	8.7	29.2
Apr-Sep 1980	14.5	10.9	4.4	14.2	6.7	25.4
Oct 1980-Mar 1981	13.5	11.8	3.7	14.7	6.9	25.3
Apr-Sep 1981	11.1	10.6	3.4	13.8	4.5	21.7

SOURCE: State of Michigan, Department of Social Services, Office of Standards and Investigations, Michigan AFDC Corrective Action Plan for the April-September 1980 Reporting Period (Lansing: 1981); and similar documents for previous years.

TABLE VII-19. MISPAYMENT RATES FOR AID TO FAMILIES WITH DEPENDENT CHILDREN: 1977-1981

(Percentage of total funds)

Reporting period	Ineligible cases	Overpayment cases	Underpayment cases	Total
Jan-June 1977	4.4	4.9	1.0	10.3
Jul-Dec 1977	4.0	4.7	1.2	9.9
Jan-Jun 1978	3.9	4.3	0.6	8.8
Jul-Sep 1978	5.5	4.1	1.7	11.3
Oct 1978-Mar 1979	4.3	5.5	0.8	10.7
Apr-Sep 1979	4.3	4.9	0.8	10.0
Oct 1979-Mar 1980	3.9	4.5	1.0	9.4
Apr-Sep 1980	3.8	3.6	0.7	8.1
Oct 1980-Mar 1981	3.0	3.9	0.7	6.9
Apr-Sep 1981	3.5	3.7	0.4	7.1

SOURCE: State of Michigan, Department of Social Services, Office of Standards and Investigations, Michigan AFDC Corrective Action Plan for the April-September 1980 Reporting Period (Lansing: 1981); and similar documents for previous years.

TABLE VII-20. NUMBER AND AMOUNT OF MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS BY TYPE OF BENEFICIARY: 1980

	Number of Beneficiaries							Amount ($1,000) of monthly benefits	
			Dependents of						
County	Retired workers	Disabled workers	Retired workers	Disabled workers	Survivors	Special age-72 beneficiaries	Total	Retired workers only	Total[a]
Alcona	1,757	236	387	154	479	2	3,015	603	916
Alger	1,086	191	245	132	375	0	2,029	358	601
Allegan	6,323	838	1,219	558	2,145	19	11,102	2,253	3,504
Alpena	3,358	490	765	416	1,485	12	6,526	1,188	2,027
Antrim	2,167	245	416	188	598	6	3,620	748	1,122
Arenac	1,821	270	437	213	615	4	3,360	636	1,015
Baraga	1,095	167	258	101	393	3	2,017	360	591
Barry	3,471	484	667	327	1,071	15	6,035	1,223	1,902
Bay	9,328	1,320	2,108	864	4,197	32	17,849	3,428	5,755
Benzie	1,442	190	280	123	351	3	2,389	486	721
Berrien	16,148	2,387	2,733	1,829	6,095	71	29,263	5,820	9,224
Branch	3,868	512	670	334	1,318	14	6,716	1,387	2,127
Calhoun	12,786	2,266	2,022	1,213	4,531	46	22,864	4,650	7,392
Cass	3,925	494	702	337	1,339	10	6,807	1,379	2,129
Charlevoix	2,462	259	452	204	719	9	4,105	844	1,258
Cheboygan	2,415	291	495	180	762	6	4,149	816	1,263
Chippewa	3,140	420	653	291	1,200	4	5,708	1,035	1,680
Clare	3,392	589	662	377	1,080	5	6,105	1,167	1,873
Clinton	2,883	332	680	238	1,219	15	5,367	1,029	1,692
Crawford	1,070	175	213	111	340	3	1,912	373	593
Delta	3,940	607	893	525	1,585	11	7,561	1,293	2,202
Dickinson	3,490	433	699	232	1,219	14	6,087	1,160	1,846
Eaton	4,811	563	943	399	1,914	17	8,647	1,736	2,770
Emmet	2,684	264	509	181	977	7	4,622	914	1,424
Genesee	28,443	6,654	5,980	4,682	14,975	76	60,810	10,590	19,810

TABLE VII-20. NUMBER AND AMOUNT OF MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS BY TYPE OF BENEFICIARY: 1980 (cont.)

County	Number of Beneficiaries							Amount ($1,000) of monthly benefits	
	Retired workers	Disabled workers	Dependents of Retired workers	Dependents of Disabled workers	Survivors	Special age-72 benefi-ciaries	Total	Retired workers only	Total[a]
Manistee	3,075	358	498	228	833	13	5,005	1,051	1,557
Marquette	5,316	814	1,135	481	2,233	27	10,006	1,844	3,114
Mason	3,057	317	493	193	863	12	4,935	1,025	1,513
Mecosta	2,878	384	544	301	924	14	5,045	989	1,532
Menominee	2,971	377	665	258	1,065	13	5,349	979	1,558
Midland	4,035	521	1,049	356	1,903	20	7,884	1,524	2,582
Missaukee	1,075	162	262	112	328	2	1,941	357	567
Monroe	8,161	1,403	1,801	1,042	3,741	59	16,207	2,966	5,207
Montcalm	5,136	687	960	453	1,794	15	9,045	1,756	2,739
Montmorency	1,590	242	336	135	425	2	2,730	552	848
Muskegon	13,660	2,748	2,765	2,055	5,861	45	27,134	5,076	8,668
Newaygo	3,507	473	705	367	1,066	8	6,126	1,214	1,877
Oakland	47,604	8,637	13,359	5,030	20,922	307	125,859	26,665	43,800
Oceana	2,406	368	458	292	775	9	4,308	804	1,273
Ogemaw	2,209	429	448	296	653	9	4,044	750	1,222
Ontonagon	1,285	166	299	110	477	2	2,339	433	699
Osceola	2,256	366	479	267	758	4	4,130	755	1,223
Oscoda	917	152	187	105	296	2	1,659	307	501
Otsego	1,548	193	357	160	579	3	2,840	550	880
Ottawa	10,955	1,077	2,483	704	3,875	43	19,137	4,070	6,277
Presque Isle	1,808	248	493	165	632	8	3,354	616	1,009
Roscommon	3,584	528	668	255	780	2	5,817	1,257	1,869
Saginaw	15,966	2,897	3,641	2,341	8,094	65	33,004	5,883	10,484
St. Clair	11,610	1,390	2,330	991	4,874	43	21,238	4,218	6,815
St. Joseph	5,626	657	887	408	1,748	24	9,350	2,057	3,048

TABLE VII-20. NUMBER AND AMOUNT OF MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS BY TYPE OF BENEFICIARY: 1980 (cont.)

	Number of Beneficiaries							Amount ($1,000) of monthly benefits	
			Dependents of						
County	Retired workers	Disabled workers	Retired workers	Disabled workers	Survivors	Special age-72 beneficiaries	Total	Retired workers only	Total[a]
Sanilac	4,434	483	1,029	343	1,570	16	7,875	1,532	2,403
Schoolcraft	1,137	167	272	136	417	4	2,133	386	634
Shiawassee	5,026	724	989	547	2,142	18	9,446	1,795	2,991
Tuscola	4,385	646	1,111	513	2,026	16	8,697	1,555	2,670
Van Buren	6,925	1,008	1,131	820	2,236	14	12,134	2,372	3,655
Washtenaw	12,961	2,359	2,170	1,217	5,362	73	24,142	5,035	8,233
Wayne	186,509	34,144	34,417	19,820	91,794	652	367,336	69,649	119,932
Wexford	2,686	405	520	260	972	6	4,849	927	1,479
MICHIGAN	723,257	112,919	139,778	71,670	308,899	2,678	1,359,201	266,031	440,637

SOURCE: Social Security Administration: special release.

a. Total includes retired workers, disabled workers, and all other beneficiaries.

TABLE VII-20. NUMBER AND AMOUNT OF MONTHLY BENEFITS IN CURRENT-PAYMENT STATUS BY TYPE OF BENEFICIARY: 1980 (cont.)

	Number of Beneficiaries							Amount ($1,000) of monthly benefits	
			Dependents of						
County	Retired workers	Disabled workers	Retired workers	Disabled workers	Survivors	Special age-72 benefi-ciaries	Total	Retired workers only	Total[a]
Gladwin	2,514	424	522	287	749	3	4,499	874	1,392
Gogebic	3,090	450	689	368	1,174	10	5,781	1,047	1,733
Grand Traverse	5,446	717	924	343	1,767	28	9,225	1,919	2,934
Gratiot	3,604	420	733	274	1,459	15	6,505	1,255	2,001
Hillsdale	3,954	533	736	401	1,357	21	7,002	1,384	2,156
Houghton	4,631	539	1,084	323	1,768	21	8,366	1,549	2,492
Huron	4,415	443	1,069	291	1,641	18	7,877	1,492	2,329
Ingham	17,914	2,408	3,368	1,760	7,577	70	33,097	6,804	10,861
Ionia	4,168	609	791	407	1,565	12	7,552	1,461	2,350
Iosco	3,548	469	729	322	979	7	6,054	1,230	1,885
Iron	2,436	342	573	205	827	13	4,396	823	1,325
Isabella	2,763	393	648	317	1,243	10	5,374	983	1,647
Jackson	12,497	1,852	2,089	1,151	4,514	42	22,145	4,641	7,315
Kalamazoo	15,466	2,136	2,537	1,135	5,480	80	26,836	5,818	8,963
Kalkaska	1,099	182	211	113	324	2	1,931	376	590
Kent	37,106	4,638	6,292	2,828	13,390	145	64,399	13,632	21,107
Keweenaw	457	52	129	41	117	1	797	154	234
Lake	1,499	235	264	149	360	0	2,507	482	724
Lapeer	3,755	664	858	532	1,876	14	7,699	1,356	2,429
Leeland	1,555	122	335	63	376	5	2,456	528	751
Lenawee	1,697	1,105	1,352	641	2,900	48	13,743	2,738	4,402
Livingston	4,986	667	995	480	2,116	22	9,266	1,853	3,044
Luce	816	189	146	123	343	1	1,618	282	482
Mackinc	1,390	169	308	133	434	5	2,439	467	721
Macomb	42,848	6,954	8,367	4,013	21,563	131	83,876	15,458	28,474

TABLE VII-21. MONTHLY AVERAGE NUMBER OF MEDICAL ASSISTANCE (MEDICAID) RECIPIENTS, BY COUNTY, FISCAL YEARS: 1980 AND 1981

County	Number		County	Number	
	1980	1981		1980	1981
Alcona	456	176	Lake	723	193
Alger	395	165	Lapeer	2,684	1,111
Allegan	2,810	870	Leelanau	276	124
Alpena	1,415	483	Lenawee	3,053	863
Antrim	706	236	Livingston	2,148	761
Arenac	870	274	Luce	535	221
Baraga	460	158	Mackinac	454	156
Barry	1,570	608	Macomb	15,477	5,067
Bay	5,123	1,450	Manistee	890	355
Benzie	592	168	Marquette	2,145	848
Berrien	10,346	2,568	Mason	1,055	399
Branch	2,057	832	Mecosta	1,323	359
Calhoun	7,836	1,776	Menominee	848	292
Cass	2,109	646	Midland	2,327	653
Charlevoix	775	277	Missaukee	486	130
Cheboygan	1,005	345	Monroe	4,097	1,298
Chippewa	1,432	459	Montcalm	2,028	524
Clare	1,642	478	Montmorency	418	135
Clinton	1,049	284	Muskegon	9,849	2,671
Crawford	549	179	Newaygo	1,732	562
Delta	1,764	679	Oakland	22,166	6,584
Dickinson	767	317	Oceana	1,226	389
Eaton	1,920	693	Ogemaw	1,239	334
Emmet	769	343	Ontonagon	499	205
Genesee	23,476	4,864	Osceola	928	265
Gladwin	1,111	305	Oscoda	422	131
Gogebic	904	429	Otsego	642	281
Grand Traverse	1,833	673	Ottawa	2,737	1,293
Gratiot	1,890	558	Presque Isle	525	178
Hillsdale	1,569	535	Roscommon	907	286
Houghton	1,829	654	Saginaw	12,321	3,031
Huron	1,180	413	St. Clair	5,708	1,744
Ingham	11,264	2,946	St. Joseph	2,247	735
Ionia	2,073	649	Sanilac	1,609	513
Iosco	1,047	420	Schoolcraft	497	161
Iron	680	315	Shiawassee	2,371	675
Isabella	2,442	727	Tuscola	2,494	869
Jackson	6,118	1,728	Van Buren	4,495	1,332
Kalamazoo	7,611	2,192	Washtenaw	6,670	1,949
Kalkaska	604	158	Wayne	175,821	39,090
Kent	15,588	4,746	Wexford	1,487	458
Keweenaw	88	36	MICHIGAN	429,283	114,037

SOURCE: Michigan Department of Social Services, Medical Assistance (Medicaid), Fiscal Year 1980 (Lansing: 1981, and Medical Assistance (Medicaid), Fiscal Year 1981 (Lansing: 1982).

TABLE VII-22. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY, FISCAL YEARS: 1980 AND 1981

County	Year	Inpatient hospital		Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total[a]
		General hospital	Mental hospital					
Alcona	1980	$ 171,534	$ 31,911	$ 53,272	$ 322,222	$ 96,510	$ 84,925	$ 851,322
	1981	254,877	38,447	20,234	445,641	90,635	87,811	1,071,816
Alger	1980	354,523	823	6,558	338,322	94,619	55,055	932,173
	1981	212,661	7,436	66,022	610,528	87,719	67,892	1,139,858
Allegan	1980	1,578,994	177,298	1,143,102	1,803,791	669,849	499,547	6,504,304
	1981	2,132,530	229,099	735,478	2,516,877	794,864	545,368	7,768,169
Alpena	1980	735,381	190,703	446,662	515,979	331,689	239,457	2,762,650
	1981	1,022,682	285,272	271,508	856,170	418,120	263,827	3,530,391
Antrim	1980	221,275	3,720	92,499	489,679	151,653	117,377	1,187,510
	1981	359,147	35,905	130,813	538,136	198,472	136,503	1,580,270
Arenac	1980	468,961	2,750	223,245	263,984	232,165	138,899	1,538,906
	1981	619,981	2,709	141,642	364,575	275,414	144,838	1,802,751
Baraga	1980	215,946	26,317	329,039	24,834	106,350	89,096	869,926
	1981	379,851	9,646	495,377	47,043	102,528	94,633	1,220,684
Barry	1980	962,835	51,203	624,772	856,501	416,167	228,173	3,565,267
	1981	1,221,335	127,927	510,755	1,332,316	486,092	284,379	4,472,236
Bay	1980	3,470,074	320,378	1,046,695	1,594,347	1,868,530	844,957	10,245,719
	1981	3,843,602	245,838	1,150,012	2,636,440	1,882,794	878,539	12,107,058
Benzie	1980	385,473	21,927	223,724	106,582	171,962	99,319	1,134,080
	1981	516,189	13,535	199,504	280,637	188,548	99,962	1,451,531
Berrien	1980	6,709,052	563,301	2,022,952	2,821,618	2,549,199	1,473,643	19,317,621
	1981	6,861,038	505,153	1,439,017	4,590,348	2,719,114	1,675,860	21,252,405

TABLE VII-22. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY, FISCAL YEARS: 1980 AND 1981 (cont.)

County	Year	Inpatient hospital General hospital	Inpatient hospital Mental hospital	Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total[a]
Branch	1980	$ 976,768	$ 104,206	$ 633,169	$ 8,984,228	$ 380,280	$ 240,343	$11,784,197
	1981	1,201,371	138,836	566,792	23,011,596	490,107	290,960	26,274,190
Calhoun	1980	5,614,302	534,399	1,429,096	2,466,258	2,473,590	1,278,156	16,002,057
	1981	6,395,475	899,146	1,096,666	3,872,281	2,522,403	1,359,172	18,707,891
Cass	1980	1,331,372	66,941	610,851	740,150	488,168	306,250	4,156,329
	1981	1,833,049	68,504	328,791	1,383,186	617,891	356,133	5,251,955
Charlevoix	1980	422,930	55,264	199,592	310,979	164,586	130,320	1,441,863
	1981	403,646	35,409	99,503	767,716	192,074	138,253	1,803,210
Cheboygan	1980	770,121	31,475	196,260	317,637	261,737	155,670	1,953,715
	1981	867,980	70,905	243,997	466,420	334,650	178,137	2,434,984
Chippewa	1980	896,941	13,061	700,014	495,963	283,214	238,891	2,862,464
	1981	1,232,817	120,248	585,794	743,916	350,659	262,329	3,622,662
Clare	1980	947,296	99,097	591,785	664,598	468,545	298,596	3,437,018
	1981	1,275,757	34,837	285,043	1,137,444	553,359	327,417	4,079,723
Clinton	1980	639,641	10,955	30,767	475,083	280,338	137,845	1,791,651
	1981	758,963	32,307	9,286	560,574	348,530	155,193	2,148,605
Crawford	1980	370,982	26,199	90,376	27,430	140,085	78,713	893,609
	1981	580,787	46,319	53,238	65,140	179,247	93,855	1,222,858
Delta	1980	753,893	1,072	1,314,455	1,149,877	357,392	344,662	4,213,560
	1981	885,041	33,370	1,145,220	1,978,778	408,221	361,228	5,139,635
Dickinson	1980	304,917	19,053	261,399	717,986	121,481	130,065	1,693,565
	1981	405,741	21,720	129,352	913,642	150,007	126,559	1,945,911

TABLE VII-22. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY, FISCAL YEARS: 1980 AND 1981 (cont.)

County	Year	Inpatient hospital		Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total[a]
		General hospital	Mental hospital					
Eaton	1980	$ 955,078	$ 142,880	$ 536,620	$1,438,176	$ 472,073	$ 352,709	$ 4,270,037
	1981	1,309,103	139,969	445,338	1,762,388	527,296	379,894	5,092,341
Emmet	1980	402,271	106,997	256,303	797,355	164,340	126,239	1,982,651
	1981	543,845	63,693	265,190	1,042,501	204,690	150,233	2,431,841
Genesee	1980	16,710,701	992,609	4,383,022	4,296,556	9,118,903	3,853,956	4[illegible],471,257
	1981	21,687,415	1,234,248	3,666,636	6,810,193	9,740,570	3,964,924	54,551,748
Gladwin	1980	688,771	19,464	214,926	130,446	329,467	194,225	1,841,557
	1981	726,714	26,734	99,530	406,810	391,145	227,709	2,287,785
Gogebic	1980	321,307	41,278	607,159	909,251	142,679	161,380	2,388,282
	1981	397,013	28,534	582,612	1,175,444	184,612	173,168	2,749,933
Grand Traverse	1980	888,803	1,259,664	1,607,872	1,073,725	482,548	325,957	6,001,351
	1981	994,063	1,071,218	1,411,512	1,963,240	526,822	386,652	6,796,712
Gratiot	1980	715,190	150,002	289,817	1,657,981	436,470	309,889	3,857,406
	1981	850,223	213,572	203,346	1,782,646	538,155	338,606	4,296,193
Hillsdale	1980	1,004,245	2,562	637,659	1,036,950	372,389	286,182	3,662,516
	1981	953,711	23,700	332,530	1,633,201	400,100	305,480	4,074,835
Houghton	1980	889,668	18,453	1,493,344	935,627	352,496	271,792	4,271,104
	1981	897,504	20,291	1,893,581	1,249,854	371,955	334,332	5,082,313
Huron	1980	570,451	-400	370,281	778,460	268,574	236,276	2,425,133
	1981	821,518	46,676	544,432	1,059,810	369,538	287,966	3,380,035

TABLE VII-22. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY, FISCAL YEARS: 1980 AND 1981 (cont.)

County	Year	Inpatient hospital: General hospital	Inpatient hospital: Mental hospital	Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total[a]
Ingham	1980	$6,244,496	$ 438,831	$2,251,488	$3,180,957	$3,097,236	$1,506,567	$19,843,871
	1981	8,232,061	890,208	1,325,214	5,294,057	3,368,000	1,567,941	24,351,187
Ionia	1980	1,225,538	34,773	763,666	556,193	692,352	330,447	4,005,227
	1981	1,409,941	86,064	234,950	1,446,853	770,376	380,890	4,840,974
Iosco	1980	543,843	59,119	516,718	475,531	229,362	167,571	2,256,124
	1981	667,855	93,172	233,307	938,451	298,029	188,891	2,737,813
Iron	1980	538,067	35,200	340,718	1,192,588	128,378	151,359	2,518,066
	1981	343,050	18,877	371,886	1,475,873	121,049	188,229	2,678,584
Isabella	1980	1,182,064	39,846	1,972,768	8,729,652	638,890	321,591	13,336,560
	1981	1,485,167	65,714	1,883,474	14,056,282	701,969	361,834	12,040,463
Jackson	1980	3,876,922	684,871	1,008,924	2,820,693	2,150,227	1,108,294	13,143,588
	1981	4,345,635	756,760	1,206,988	4,630,380	2,287,150	1,188,526	16,194,105
Kalamazoo	1980	4,538,134	1,591,518	4,707,260	2,488,131	1,679,389	1,063,001	18,520,499
	1981	6,156,087	1,108,448	5,710,196	3,471,802	1,853,366	1,197,554	22,523,335
Kalkaska	1980	396,337	-10,927	30,469	136,518	165,508	76,528	922,395
	1981	419,330	25,776	30,832	241,027	185,856	91,693	1,161,152
Kent	1980	7,490,747	1,311,616	6,137,030	5,929,912	3,676,025	2,367,466	30,646,090
	1981	8,866,739	1,413,633	4,153,997	10,596,169	4,044,085	2,570,320	36,181,873
Keweenaw	1980	20,543	4,855	1,216	1,167	11,816	17,146	71,009
	1981	67,173	4,613	4,514	7,464	27,259	18,172	144,287
Lake	1980	392,578	2,652	17,154	100,672	136,640	128,133	953,329
	1981	420,045	59,289	187,913	287,900	166,278	151,584	1,469,532

TABLE VII-22. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY, FISCAL YEARS: 1980 AND 1981 (cont.)

		Inpatient hospital						
County	Year	General hospital	Mental hospital	Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total[a]
Lapeer	1980	$1,160,460	$ 105,165	$ 450,749	$16,379,438	$ 645,368	$ 359,291	$19,552,356
	1981	1,639,018	90,823	1,065,749	22,465,582	760,857	395,088	27,068,190
Leelanau	1980	141,447	21,832	165,448	323,811	62,779	34,681	810,281
	1981	232,020	16,413	122,584	446,411	65,534	33,340	996,497
Lenawee	1980	1,547,037	151,075	764,135	1,318,240	691,610	387,199	5,526,363
	1981	2,006,990	218,668	736,913	1,851,873	857,673	467,685	6,988,661
Livingston	1980	1,039,969	135,243	165,244	7,262,098	504,746	337,047	9,940,424
	1981	1,194,046	255,926	109,732	11,729,672	621,230	358,157	14,939,654
Luce	1980	223,152	740	1,557	5,051,371	80,878	62,676	5,501,698
	1981	262,663	0	326	8,645,265	102,785	81,576	9,210,601
Mackinac	1980	274,482	12,686	71,470	305,689	107,002	65,786	931,848
	1981	231,714	42,856	49,895	480,836	108,389	67,097	1,080,850
Macomb	1980	8,904,393	707,231	6,776,040	8,564,465	5,388,644	2,680,920	36,906,712
	1981	10,992,465	951,122	6,063,961	16,192,053	6,463,404	2,919,350	48,414,676
Manistee	1980	511,126	10,115	338,713	637,108	182,489	118,112	1,990,593
	1981	536,418	54,148	615,495	1,048,435	224,084	133,876	2,846,023
Marquette	1980	1,248,987	74,795	862,449	1,141,436	534,742	344,833	4,636,821
	1981	1,570,404	55,340	545,225	1,966,790	610,005	357,773	5,627,877
Mason	1980	453,711	-345	928,251	227,350	228,341	165,051	2,229,987
	1981	455,733	21,583	797,052	577,624	287,816	174,130	2,613,470
Mecosta	1980	790,816	68,277	499,200	281,800	327,543	226,563	2,537,257
	1981	731,024	54,920	400,564	512,238	342,99[illegible]	245,457	2,659,561

TABLE VII-22. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY, FISCAL YEARS: 1980 AND 1981 (cont.)

County	Year	Inpatient hospital: General hospital	Inpatient hospital: Mental hospital	Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total[a]
Menominee	1980	$ 472,903	$ -53,844	$ 34,755	$ 611,033	$ 180,060	$ 126,629	$ 1,493,576
	1981	468,033	23,086	51,208	721,717	199,577	138,930	1,748,868
Midland	1980	1,238,723	145,538	833,554	654,156	605,267	366,233	4,454,374
	1981	1,218,569	86,272	367,874	1,195,682	633,753	414,571	4,674,717
Missaukee	1980	336,946	9,973	88,891	11,552	128,229	82,397	751,374
	1981	231,700	46,324	106,869	36,025	142,035	93,544	769,201
Monroe	1980	3,005,133	362,937	2,200,993	1,669,994	1,319,476	747,838	10,329,619
	1981	3,657,004	347,104	2,439,788	2,324,399	1,635,990	794,140	12,445,276
Montcalm	1980	1,164,109	92,366	399,663	578,595	578,653	349,026	3,574,780
	1981	1,620,921	106,108	109,912	1,158,147	687,421	380,846	4,610,200
Montmorency	1980	245,115	19,212	491	4,573	141,661	71,072	585,128
	1981	264,097	22,425	8,048	54,154	177,035	86,214	750,925
Muskegon	1980	5,148,407	462,481	2,095,893	11,292,967	2,807,830	1,724,415	25,927,721
	1981	5,965,318	510,524	1,632,313	16,813,681	3,154,064	1,759,281	32,657,863
Newaygo	1980	883,657	14,920	1,009,367	565,860	375,502	283,295	3,600,695
	1981	1,062,970	15,805	968,415	911,567	481,316	339,105	4,371,385
Oakland	1980	14,320,148	2,246,976	7,434,767	9,521,110	7,518,622	3,993,538	51,314,027
	1981	17,643,851	3,323,900	5,010,926	15,701,174	9,171,271	4,431,442	63,352,340
Oceana	1980	701,753	45,189	419,893	331,172	296,954	175,153	2,285,196
	1981	731,635	7,144	476,131	431,501	344,311	196,228	2,575,490
Ogemaw	1980	683,147	32,553	1,386,112	571,348	329,734	309,329	3,534,931
	1981	801,110	40,983	1,537,475	890,316	387,861	322,540	4,249,523

TABLE VII-22. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY, FISCAL YEARS: 1980 AND 1981 (cont.)

County	Year	Inpatient hospital: General hospital	Inpatient hospital: Mental hospital	Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total[a]
Ontonagon	1980	$ 358,014	$ 10,714	$ 283,859	$ 483,719	$ 108,116	$ 105,325	$ 1,411,668
	1981	386,605	6,029	351,487	569,579	108,946	109,184	1,604,892
Osceola	1980	612,343	30,062	87,063	285,297	242,090	140,361	1,630,710
	1981	597,621	22,127	129,268	539,229	258,824	161,983	1,980,394
Oscoda	1980	201,689	5,271	101,500	151,892	100,295	76,848	708,608
	1981	228,891	30,741	62,704	273,343	112,767	76,893	871,692
Otsego	1980	564,029	32,275	237,522	3,938,994	164,755	85,929	5,133,042
	1981	388,861	33,891	135,242	5,918,460	209,240	104,978	6,938,395
Ottawa	1980	1,093,510	222,516	2,298,182	2,367,957	581,203	556,708	7,618,313
	1981	1,370,366	490,157	1,205,997	4,104,839	754,430	608,062	9,185,002
Presque Isle	1980	258,612	47,081	116,103	304,116	108,809	94,095	1,011,623
	1981	404,526	56,152	187,309	392,433	128,096	104,297	1,386,965
Roscommon	1980	462,020	19,121	34,954	315,284	234,436	188,209	1,458,133
	1981	562,561	11,378	37,137	399,744	267,289	203,329	1,756,034
Saginaw	1980	8,418,721	427,198	1,894,645	3,508,072	3,683,007	1,647,273	22,326,067
	1981	8,759,880	520,566	1,410,306	5,717,646	3,902,235	1,762,079	25,329,342
St. Clair	1980	3,096,386	248,068	1,260,555	1,000,625	1,779,257	749,[illegible]	9,645,963
	1981	3,611,783	330,429	916,183	1,732,700	2,032,400	819,207	11,255,372
St. Joseph	1980	1,227,165	68,343	871,563	892,445	520,201	389,039	4,527,717
	1981	1,435,824	52,990	324,420	2,065,339	583,137	460,982	5,462,663
Sanilac	1980	779,120	25,821	332,745	677,357	410,655	246,878	2,790,412
	1981	1,083,216	33,417	385,576	1,025,592	453,869	287,100	3,691,716

TABLE VII-22. PAYMENTS BY STATE OF MICHIGAN TO VENDORS PROVIDING MEDICAL ASSISTANCE (MEDICAID), BY SELECTED TYPE OF SERVICE AND BY COUNTY, FISCAL YEARS: 1980 AND 1981 (cont.)

County	Year	Inpatient Hospital General hospital	 Mental hospital	Skilled nursing	Intermediate care facility	Physicians	Prescribed drugs	Total[a]
Schoolcraft	1980	$ 217,555	$ 4,901	$ 145,330	$ 445,290	$ 92,007	$ 87,724	$ 1,107,919
	1981	197,308	11,291	107,437	637,174	95,016	83,046	1,246,939
Shiawassee	1980	1,329,237	16,809	764,656	859,715	661,489	319,235	4,456,423
	1981	1,712,197	105,200	928,487	1,277,737	815,294	383,805	5,850,915
Tuscola	1980	1,279,870	99,832	618,011	8,028,295	552,274	323,166	11,353,510
	1981	1,549,586	70,393	665,976	16,539,632	663,517	387,241	20,462,[illegible]00
Van Buren	1980	2,810,549	112,808	1,070,089	1,293,284	1,052,418	718,068	8,432,184
	1981	3,606,562	179,081	661,424	2,077,084	1,228,494	787,805	10,134,244
Washtenaw	1980	6,343,449	2,305,710	1,753,793	1,908,382	2,084,284	1,021,161	17,451,267
	1981	5,629,511	960,878	967,[illegible]29	3,764,583	2,406,285	1,074,278	17,041,152
Wayne	1980	184,995,667	15,179,938	34,773,631	80,469,697	68,763,645	29,995,318	470,282,390
	1981	204,632,646	23,259,074	29,010,614	115,418,736	80,862,482	32,597,941	555,546,254
Wexford	1980	1,055,274	83,280	767,306	201,984	388,803	252,568	3,028,624
	1981	1,051,571	92,716	821,843	557,574	431,503	275,721	3,564,330
MICHIGAN	1980	337,497,796	32,882,779	114,753,840	238,594,232	141,417,745	70,574,941	1,054,317,892
	1981	385,585,930	42,951,741	96,016,916	379,618,421	163,242,709	76,858,753	1,290,056,685

SOURCE: Michigan Department of Social Services, Medical Assistance (Medicaid) Fiscal Year 1980 (Lansing: 1981), Table 10.

a. See Table VII-14 for a complete listing of items included in the total.

TABLE VII-23. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER AID TO FAMILIES WITH DEPENDENT CHILDREN, EMERGENCY ASSISTANCE, GENERAL ASSISTANCE, AND FOOD STAMPS IN MICHIGAN, BY COUNTY: JANUARY 1981 AND 1982

	1981			1982		
		Payments			Payments	
County	Number of recipients	Total ($1,000)	Average per recipient	Number of recipients	Total ($1,000)	Average per recipient
Alcona	1,509	157.9	$ 104.64	1,450	155.6	$ 107.34
Alger	1,023	107.9	105.50	1,000	103.7	103.68
Allegan	7,073	804.3	113.71	6,490	740.0	114.02
Alpena	4,115	503.1	122.27	4,224	510.5	120.85
Antrim	1,646	161.9	98.39	1,704	171.4	100.57
Arenac	2,731	299.3	109.58	2,609	308.6	118.29
Baraga	1,250	127.4	101.91	1,136	116.3	102.41
Barry	4,400	512.6	116.51	3,957	470.9	118.46
Bay	13,156	1,727.9	131.34	12,701	1,702.8	134.07
Benzie	1,601	148.6	92.84	1,373	142.6	103.89
Berrien	29,867	3,557.4	119.11	26,336	3,216.4	122.13
Branch	4,521	518.9	114.77	4,745	548.5	115.61
Calhoun	19,222	2,491.9	129.64	19,200	2,526.9	131.61
Cass	6,443	721.3	111.95	5,956	687.6	115.45
Charlevoix	2,048	211.4	103.23	2,008	213.0	106.07
Cheboygan	3,013	283.5	94.11	2,817	282.4	100.26
Chippewa	4,120	405.1	98.32	3,554	383.0	107.76
Clare	4,337	535.9	123.57	4,234	559.3	132.11
Clinton	3,028	371.0	122.52	2,955	360.2	121.89
Crawford	1,978	193.3	97.74	1,994	194.9	97.72
Delta	4,026	435.6	108.19	3,560	393.3	110.47
Dickinson	1,968	188.5	95.78	1,928	203.9	105.74
Eaton	5,128	608.8	118.73	4,916	580.1	118.00
Emmet	2,190	202.4	92.41	2,281	213.5	93.56
Genesee	63,393	8,753.1	138.08	63,721	8,884.1	139.42
Gladwin	3,499	416.2	118.96	3,307	410.7	124.19
Gogebic	2,354	206.1	87.58	2,150	197.1	91.66
Grand Traverse	3,971	435.8	109.76	3,886	438.1	112.73
Gratiot	4,439	482.6	108.72	4,558	488.6	107.19
Hillsdale	4,794	515.1	107.45	4,859	525.6	108.17
Houghton	4,455	460.1	103.28	4,139	437.8	105.78
Huron	3,172	320.0	100.87	3,415	371.2	108.70
Ingham	29,918	4,131.3	138.09	28,680	3,906.9	136.22
Ionia	4,907	597.6	121.79	5,206	636.4	122.25
Iosco	3,951	412.6	104.42	3,457	368.2	106.51

TABLE VII-23. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER AID TO FAMILIES WITH DEPENDENT CHILDREN, EMERGENCY ASSISTANCE, GENERAL ASSISTANCE, AND FOOD STAMPS IN MICHIGAN, BY COUNTY: JANUARY 1981 AND 1982 (cont.)

	1981			1982		
		Payments			Payments	
County	Number of recipients	Total ($1,000)	Average per recipient	Number of recipients	Total ($1,000)	Average per recipient
Iron	1,567	138.0	$ 88.08	1,591	135.4	$ 85.12
Isabella	4,808	597.5	124.27	4,333	560.7	129.41
Jackson	15,328	1,930.9	125.97	14,491	1,922.4	132.66
Kalamazoo	19,770	2,580.2	130.51	18,912	2,472.1	130.71
Kalkaska	1,816	180.8	99.55	1,877	191.0	101.73
Kent	37,385	4,487.5	120.04	35,176	4,210.8	119.71
Keweenaw	245	18.6	75.80	259	18.4	70.90
Lake	1,952	185.0	94.80	2,012	217.1	107.93
Lapeer	6,754	749.2	110.93	7,122	803.5	112.82
Leelanau	822	71.8	87.31	730	63.4	86.91
Lenawee	9,276	1,133.8	122.23	8,659	1,905.8	126.55
Livingston	5,785	733.7	126.82	5,931	754.2	127.17
Luce	911	93.7	102.81	1,007	98.4	97.76
Mackinac	1,397	128.0	91.61	1,247	109.9	88.16
Macomb	41,343	5,395.4	130.50	41,792	5,573.7	133.37
Manistee	2,450	275.2	112.32	2,468	287.5	116.49
Marquette	6,566	729.4	111.08	5,241	643.4	122.77
Mason	3,282	301.1	91.73	2,985	293.2	98.22
Mecosta	3,435	367.4	106.95	3,128	332.2	106.21
Menominee	2,502	250.8	100.73	2,342	262.5	112.07
Midland	6,139	779.5	126.98	5,322	709.7	133.35
Missauke	1,401	139.0	99.19	1,270	138.7	109.25
Monroe	12,485	1,619.7	129.74	11,928	1,595.4	133.75
Montcalm	5,165	559.6	108.35	5,149	591.0	114.79
Montmorency	1,511	156.7	103.72	1,524	167.4	109.85
Muskegon	23,875	2,812.1	117.79	22,812	2,808.3	123.11
Newaygo	5,128	510.9	99.63	5,2[illegible]8	566.8	108.83
Oakland	52,959	7,209.0	136.12	55,509	7,713.3	138.96
Oceana	3,339	342.7	102.65	3,161	346.6	109.65
Ogemaw	2,775	309.4	111.49	2,942	329.7	112.06
Ontonagon	1,061	101.0	95.23	779	72.2	92.72
Osceola	2,799	283.8	101.41	2,797	277.7	99.30
Oscoda	1,069	113.1	105.82	999	112.0	112.16
Otsego	1,417	142.3	100.41	1,330	143.6	107.95
Ottawa	6,649	774.8	116.53	6,272	745.6	118.88

TABLE VII-23. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER AID TO FAMILIES WITH DEPENDENT CHILDREN, EMERGENCY ASSISTANCE, GENERAL ASSISTANCE, AND FOOD STAMPS IN MICHIGAN, BY COUNTY: JANUARY 1981 AND 1982 (cont.)

County	1981			1982		
		Payments			Payments	
	Number of recipients	Total ($1,000)	Average per recipients	Number of recipients	Total ($1,000)	Average per recipient
Presque Isle	1,319	123.6	$ 93.73	1,359	133.4	$ 98.12
Roscommon	2,444	227.0	113.36	2,463	289.5	117.52
Saginaw	32,357	4,626.0	142.97	31,746	4,583.9	144.39
St. Clair	16,419	2,192.9	133.56	16,056	2,257.0	140.57
St. Joseph	6,685	745.9	111.57	6,230	730.9	117.32
Sanilac	5,157	551.8	107.01	4,977	563.1	113.15
Schoolcraft	1,032	103.7	100.52	1,058	103.0	97.37
Shiawasse	7,105	842.9	118.63	7,267	850.8	117.08
Tuscola	6,045	699.0	115.63	5,868	702.5	119.72
Van Buren	12,057	1,370.6	113.68	10,813	1,253.8	115.95
Washtenaw	16,506	2,306.6	139.74	16,726	1,353.7	140.72
Wayne	437,793	66,051.0	150.87	441,930	68,948.3	156.02
Wexford	3,675	402.1	109.41	3,610	408.2	113.07
TOTAL	1,103,006	148,501.6	134.63	1,088,932	150,992.1	138.66

SOURCE: Michigan Department of Social Services, Assistance Payments Statistics (Lansing: monthly), January 1981 and January, 1982, Table 2.

TABLE VII-24. TRANSFER PAYMENTS PER CAPITA AND RANKING OF MICHIGAN COUNTIES ACCORDING TO TRANSFER PAYMENTS AS A PERCENTAGE OF PERSONAL INCOME: 1981

County	Per capita	Percentage	County	Per capita	Percentage
Lake	2,462	37.5	Menominee	1,4[illegible]	18.4
Montmorency	2,712	36.3	Huron	1,692	18.1
Keweenaw	2,768	36.2	Ionia	1,412	18.0
Oscoda	1,862	35.8	Otsego	1,565	17.9
Alcona	2,465	35.0	Muskegon	1,595	17.5
Roscommon	2,593	34.6	Hillsdale	1,468	17.3
Ogemaw	2,000	29.6	Branch	1,503	17.0
Iron	2,503	29.1	Wayne	1,946	16.9
Clare	2,027	29.0	Leelanau	1,449	16.7
Gogebic	2,326	29.0	Calhoun	1,742	16.6
Ontonagon	1,936	27.1	Berrien	1,573	16.6
Chippewa	2,040	27.0	St. Joseph	1,457	16.4
Baraga	2,020	26.8	St. Clair	1,538	16.2
Gladwin	1,887	26.8	Isabella	1,239	16.1
Alger	1,854	26.6	Marquette	1,406	16.1
Schoolcraft	2,183	26.5	Tuscola	1,419	15.7
Houghton	1,913	26.2	Gratiot	1,398	15.3
Arenac	1,881	26.1	Shiawassee	1,432	15.0
Crawford	1,761	25.9	Grand Traverse	1,514	14.9
Cheboygan	1,947	25.3	Lenawee	1,421	14.9
Osceola	1,726	25.1	Barry	1,165	14.7
Benzie	1,901	24.6	Saginaw	1,533	14.6
Luce	2,366	24.5	Lapeer	1,292	14.5
Missaukee	1,542	24.4	Allegan	1,175	14.3
Presque Isle	1,821	23.8	Bay	1,437	14.3
Mackinac	2,025	23.7	Jackson	1,394	14.3
Oceana	1,695	23.6	Cass	1,299	14.2
Iosco	1,872	23.5	Genesee	1,553	13.8
Mecosta	1,347	22.7	Ingham	1,431	12.9
Wexford	1,750	22.5	Kent	1,335	12.6
Antrim	1,847	22.4	Monroe	1,253	12.3
Delta	1,847	22.1	Kalamazoo	1,306	12.0
Manistee	1,849	22.0	Washtenaw	1,268	11.1
Newaygo	1,518	21.1	Ottawa	1,053	10.9
Alpena	1,777	21.0	Clinton	1,070	10.9
Charlevoix	1,770	20.5	Macomb	1,226	10.7
Kalkaska	1,511	20.5	Eaton	1,033	10.7
Mason	1,520	20.2	Midland	1,060	9.9
Van Buren	1,694	20.0	Livingston	909	9.6
Sanilac	1,647	20.0	Oakland	1,305	9.2
Dickinson	1,921	19.7			
Emmet	1,744	19.2	Michigan	1,548	14.4
Montcalm	1,657	19.1	United States	1,467	14.0

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VII-25. MICHIGAN COUNTIES RANKED ACCORDING TO SOCIAL SECURITY BENEFITS (OLD AGE, SURVIVORS, AND DISABILITY INSURANCE) AS A PERCENTAGE OF TOTAL PERSONAL INCOME: 1981

County	Dollar amount ($000)	As a percentage of income	County	Dollar amount ($000)	As a percentage of income
Keweenaw	3,088	20.2	Otsego	11,643	8.8
Montmorency	11,155	19.9	Montcalm	36,144	8.6
Roscommon	24,499	19.2	Van Buren	48,149	8.5
Lake	9,491	19.0	Hillsdale	28,450	8.1
Oscoda	6,628	18.0	Muskegon	115,160	8.0
Alcona	12,037	17.4	St. Joseph	40,057	7.9
Iron	17,533	14.8	Leelanau	9,845	7.9
Ogemaw	16,130	14.7	Branch	28,013	7.9
Gogebic	23,007	14.7	Berrien	121,891	7.6
Clare	24,705	14.5	Ionia	31,102	7.6
Ontonagon	9,257	13.1	Gratiot	26,510	7.2
Gladwin	18,358	13.1	Tuscola	35,568	7.0
Alger	7,971	12.7	St. Clair	90,374	6.9
Arenac	13,410	12.6	Lenawee	58,237	6.9
Osceola	16,180	12.4	Allegan	46,251	6.9
Presque Isle	13,376	12.4	Barry	25,083	6.8
Schoolcraft	8,416	12.3	Grand Traverse	38,648	6.8
Baraga	7,829	12.2	Calhoun	97,561	6.7
Crawford	7,816	12.1	Jackson	96,588	6.6
Houghton	33,037	12.0	Marquette	41,404	6.5
Missaukee	7,492	11.5	Bay	76,548	6.4
Iosco	24,818	11.0	Cass	28,075	6.2
Mackinac	9,515	11.0	Wayne	1,595,528	6.1
Antrim	14,763	11.0	Saginaw	139,917	5.9
Benzie	9,454	10.8	Shiawassee	39,719	5.9
Manistee	20,441	10.8	Kent	278,657	5.9
Oceana	16,812	10.7	Ottawa	82,946	5.4
Chippewa	22,269	10.5	Isabella	21,900	5.3
Cheboygan	16,658	10.5	Genesee	264,824	5.2
Luce	6,393	10.3	Lapeer	32,437	5.2
Dickinson	24,425	9.9	Kalamazoo	118,209	5.1
Wexford	19,546	9.9	Monroe	69,401	5.1
Mason	19,869	9.8	Macomb	379,332	4.7
Alpena	26,97[illegible]	9.8	Ingham	143,806	4.7
Newaygo	24,739	9.8	Midland	34,387	4.4
Charlevoix	16,543	9.7	Eaton	36,682	4.3
Menominee	20,621	9.7	Livingston	40,386	4.2
Sanilac	31,772	9.5	Oakland	581,689	4.1
Kalkaska	7,772	9.4	Clinton	22,472	4.1
Mecosta	20,209	9.3	Washtenaw	108,989	3.6
Huron	30,794	9.1			
Delta	29,301	9.1	Michigan	5,846,511	5.9
Emmet	18,828	8.9	United States	38,689,000	5.8

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VII-26. MICHIGAN COUNTIES RANKED ACCORDING TO PUBLIC ASSISTANCE (WELFARE) BENEFITS AS A PERCENTAGE OF TOTAL PERSONAL INCOME: 1981

County	Dollar amount ($000)	As a percentage of income	County	Dollar amount ($000)	As a percentage of income
Lake	2,901	5.8	Mason	4,238	2.1
Oscoda	1,650	4.5	Manistee	3,974	2.1
Clare	6,726	4.0	Cass	9,280	2.1
Arenac	4,132	3.9	St. Joseph	10,155	2.0
Alcona	2,635	3.8	Gratiot	7,390	2.0
Ogemaw	4,129	3.8	Hillsdale	7,006	2.0
Van Buren	20,827	3.7	Bay	23,689	2.0
Crawford	2,371	3.7	Montcalm	8,317	2.0
Montmorency	1,989	3.6	Ingham	59,444	2.0
Wayne	925,295	3.5	Iron	2,311	1.9
Gladwin	4,840	3.4	Tuscola	9,914	1.9
Oceana	5,394	3.4	Branch	6,671	1.9
Chippewa	6,847	3.2	Menominee	3,975	1.9
Osceola	4,127	3.2	Presque Isle	1,999	1.9
Berrien	49,592	3.1	Charlevoix	3,073	1.8
Roscommon	3,914	3.1	Antrim	2,423	1.8
Kalkaska	2,485	3.0	Barry	6,557	1.8
Missaukee	1,885	2.9	Jackson	26,033	1.8
Baraga	1,850	2.9	Lenawee	14,568	1.7
Alger	1,809	2.9	Marquette	10,803	1.7
Saginaw	67,277	2.8	Allegan	11,174	1.7
Muskegon	40,347	2.8	Kalamazoo	37,742	1.6
Wexford	5,550	2.8	Shiawassee	10,987	1.6
Houghton	7,655	2.8	Lapeer	10,180	1.6
Luce	1,723	2.8	Otsego	2,058	1.6
Newaygo	6,957	2.7	Emmet	3,236	1.5
Schoolcraft	1,863	2.7	Huron	5,124	1.5
Mecosta	5,758	2.6	Kent	69,123	1.5
Ontonagon	1,834	2.6	Monroe	19,254	1.4
Cheboygan	3,983	2.5	Midland	10,532	1.3
Benzie	2,147	2.5	Grand Traverse	7,158	1.3
Calhoun	35,924	2.5	Washtenaw	34,735	1.1
Alpena	6,688	2.4	Dickinson	2,652	1.1
Sanilac	8,004	2.4	Eaton	8,726	1.0
Genesee	120,560	2.4	Leelanau	1,187	1.0
Iosco	5,282	2.4	Livingston	9,122	0.9
Mackinac	1,972	2.3	Clinton	4,809	0.9
Gogebic	3,577	2.3	Macomb	68,759	0.9
Keweenaw	337	2.2	Ottawa	10,987	0.7
St. Clair	28,658	2.2	Oakland	97,862	0.7
Isabella	8,709	2.1			
Ionia	8,644	2.1	Michigan	2,082,895	2.1
Delta	6,821	2.1	United States	35,262,000	1.5

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE VII-27. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER THE SUPPLEMENTAL SECURITY INCOME PROGRAM IN MICHIGAN, BY COUNTY, 1980 AND 1981

	1980			1981		
		Payments			Payments	
County	Number of recipients	Total ($000)	Average per recipient	Number of recipients	Total ($000)	Average per recipient
Alcona	181	26.6	$ 147.23	164	25.3	$ 154.17
Alger	191	33.4	174.84	189	35.3	186.91
Allegan	796	128.7	161.67	792	139.3	175.89
Alpena	439	73.2	166.73	417	72.2	173.21
Antrim	269	48.4	179.83	261	48.2	184.52
Arenac	268	48.0	178.89	269	52.2	194.11
Baraga	219	30.8	140.86	202	29.7	147.16
Barry	366	66.0	180.20	317	68.5	184.73
Bay	1,234	218.6	177.14	1,237	238.1	192.51
Benzie	188	37.1	197.36	178	36.2	203.22
Berrien	2,879	491.1	170.58	2,803	507.3	181.00
Branch	713	77.2	108.30	663	81.2	122.42
Calhoun	2,199	413.2	187.91	2,147	429.4	200.01
Cass	513	84.1	163.91	532	88.1	165.55
Charlevoix	271	40.5	149.47	257	42.2	164.04
Cheboygan	309	47.8	154.69	312	52.3	167.59
Chippewa	597	108.1	181.11	582	108.6	186.55
Clare	350	55.3	158.02	339	61.2	180.39
Clinton	241	38.1	158.14	231	40.3	174.52
Crawford	99	14.9	150.61	91	14.7	161.45
Delta	709	108.1	152.45	658	105.9	160.92
Dickinson	364	44.2	121.30	334	43.9	131.33
Eaton	518	98.8	190.71	508	99.2	195.32
Emmet	297	50.6	170.27	283	48.1	169.96
Genesee	5,212	977.6	187.57	5,208	1,055.9	202.74
Gladwin	304	53.1	174.56	292	55.8	191.12
Gogebic	437	62.2	142.27	429	63.4	147.70
Grand Traverse	761	155.5	204.30	758	158.0	208.44
Gratiot	644	111.7	173.49	622	112.2	180.38
Hillsdale	546	106.8	195.69	502	99.8	198.74
Houghton	780	118.2	151.52	751	121.3	161.46
Huron	584	109.9	188.13	571	110.1	192.87
Ingham	2,666	480.9	180.38	2,674	521.7	195.12
Ionia	568	103.1	181.54	558	101.9	182.57
Iosco	273	38.7	141.62	267	43.5	163.09

TABLE VII-27. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER THE SUPPLEMENTAL SECURITY INCOME PROGRAM IN MICHIGAN, BY COUNTY: 1980 AND 1981 (cont.)

County	1980			1981		
		Payments			Payments	
	Number of recipients	Total ($000)	Average per recipient	Number of recipients	Total ($000)	Average per recipient
Iron	337	45.9	$ 136.18	329	49.5	$ 150.45
Isabella	788	92.9	117.84	780	100.3	128.55
Jackson	1,542	282.8	183.41	1,540	297.1	192.92
Kalamazoo	2,311	396.2	171.45	2,280	429.7	188.47
Kalkaska	160	30.2	188.99	172	33.0	191.91
Kent	4,753	843.3	177.43	4,721	901.1	190.87
Keweenaw	42	5.1	121.83	39	5.2	132.98
Lake	286	37.8	132.16	269	39.8	147.92
Lapeer	887	132.2	149.04	858	140.9	164.18
Leelanau	86	11.7	135.55	93	14.0	150.52
Lenawee	947	173.6	183.35	954	182.5	191.26
Livingston	586	81.7	139.40	561	85.7	152.82
Luce	328	46.8	142.54	304	45.0	148.17
Mackinac	210	30.3	144.17	197	30.4	154.50
Macomb	3,802	641.7	168.78	3,840	704.9	183.56
Manistee	272	37.9	139.19	249	38.0	152.73
Marquette	700	108.4	154.84	706	118.2	167.49
Mason	354	52.8	149.15	348	55.7	159.96
Mecosta	381	62.0	162.65	386	68.6	177.76
Menominee	376	49.7	132.26	346	50.7	146.67
Midland	516	93.6	181.49	500	98.0	196.07
Missaukee	166	31.8	191.33	154	29.4	191.18
Monroe	984	147.2	149.59	939	156.0	166.16
Montcalm	779	145.6	186.89	749	148.8	198.63
Montmorency	140	17.7	126.09	127	18.4	144.71
Muskegon	2,511	407.7	162.36	2,505	433.6	177.07
Newaygo	511	74.9	146.54	506	81.6	161.20
Oakland	5,719	1,020.9	178.51	5,708	1,110.3	194.52
Oceana	327	50.4	154.08	312	52.2	167.35
Ogemaw	381	46.4	121.75	375	49.0	130.60
Ontonagon	215	33.7	156.88	208	34.0	163.30
Osceola	359	64.5	179.80	352	66.7	189.61
Oscoda	103	12.8	123.97	99	14.8	149.89
Otsego	278	46.4	167.02	247	45.4	183.88
Ottawa	740	137.0	185.19	754	147.0	194.94

TABLE VII-27. TOTAL NUMBER OF RECIPIENTS AND EXPENDITURES UNDER THE SUPPLEMENTAL SECURITY INCOME PROGRAM IN MICHIGAN, BY COUNTY: 1980 AND 1981 (cont.)

	1980			1981		
		Payments			Payments	
County	Number of recipients	Total ($000)	Average per recipient	Number of recipients	Total ($000)	Average per recipient
Presque Isle	308	51.7	$ 167.81	305	52.5	$ 172.13
Roscommon	241	40.9	169.68	243	43.5	178.90
Saginaw	2,737	515.2	188.24	2,757	568.3	206.12
St. Clair	1,377	230.2	167.19	1,328	238.6	179.67
St. Joseph	556	89.3	160.64	564	102.9	182.46
Sanilac	525	105.0	199.93	504	107.1	212.44
Schoolcraft	257	49.5	192.77	238	46.2	194.03
Shiawassee	698	127.1	182.09	686	133.8	195.05
Tuscola	945	130.3	137.85	834	130.9	156.97
Van Buren	1,199	205.1	171.10	1,158	214.9	185.56
Washtenaw	1,771	328.2	185.29	1,862	386.2	207.39
Wayne	40,475	6,929.3	171.20	39,543	7,452.0	188.45
Wexford	449	73.5	163.61	438	76.5	174.59
TOTAL	111,400	19,069.0	171.18	109,419	20,349.8	185.98

SOURCE: Michigan Department of Social Services, Assistance Payments Statistics (Lansing: monthly), January 1981, Table 21, and January 1982, Table 21.

NOTE: Social Security Income comprises programs formerly under aid to the blind, aid to the aged, and aid to the disabled. The dollar amounts indicated include the federal payment as well as state supplementation.

VIII. LAW ENFORCEMENT AND THE COURTS

The Michigan Department of State Police compiles data on criminal offenses, arrests, and stolen property within the state of Michigan. It publishes these data in the monthly Uniform Crime Report Bulletin, the semi-annual crime summary, and the annual Uniform Crime Report, which is usually published in the spring. From 1959 through 1970, the information now contained in the Uniform Crime Report was found in the Department of State Police's Michigan Law Enforcement Officials Report on Crime. Michigan began collecting such data in 1959.

National data on crime and comparisons with other states are found in the Federal Bureau of Investigation's Uniform Crime Report for the United States.

The Michigan Department of State Police collects data from its units in the field, county sheriff departments, and other police units of local governments. Its statistics are more comprehensive than those published in the federal Uniform Crime Report, especially since less is now being published in that document. The tables that follow present considerable information not included in this year's federal Uniform Crime Report. For additional information, the Uniform Reporting Section of the Michigan Department of State Police should be contacted.

The Federal Bureau of Investigation divides crimes into two categories: Index Offenses and Nonindex Offenses. Index Offenses are those referred to when authorities say the crime index has increased. The crime rate is the total index crime per 100,000 population. Crimes in the index are usually more serious and/or are based on data with a high degree of interpreting and reporting reliability. Index Offenses are murder and nonnegligent manslaughter; rape; robbery in the form of stealing from a person; aggravated assault; burglary, which is any unlawful entry to commit a felony or theft; larceny, which is theft excluding motor vehicle theft (listed separately) and does not include con games, embezzlement, or fraud; and motor vehicle theft (the term has been used interchangeably with auto theft), which includes all cases in which a motor vehicle is stolen or driven away. All other offenses are classified under Nonindex Offenses. Sex offenses do not include rape or prostitution and commercialized vice, which are listed separately. Offenses against family and children include nonsupport, desertion, neglect, and abuse. The term "liquor laws" as used here includes all violations of the liquor laws except driving under the influence and drunkenness, which are listed separately.

Offenses are crimes committed; arrests refer to the number of individuals taken into custody and formally charged with violation of the law. An offense is cleared by arrest when at least one person is arrested, charged, and given to the court for prosecution. Data concerning offenses include attempts to commit a crime whether or not successfully executed. It might be noted that perhaps one-half of all crime goes unreported.

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TABLE VIII-1. CRIMINAL OFFENSES IN MICHIGAN BY TYPE IN THE CRIME INDEX: 1962-1981

Year	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny and theft	Motor vehicle theft	Total crime index
1962	255	939	5,766	7,824	43,408	116,279	14,725	189,196
1963	242	940	6,301	7,370	44,086	125,573	17,014	201,526
1964	250	1,217	6,766	8,650	45,871	129,791	21,172	213,717
1965	344	1,407	7,881	10,341	55,017	133,516	24,208	232,714
1966	365	1,844	12,423	10,641	72,333	153,895	27,612	279,113
1967	517	1,848	16,071	12,826	91,264	173,095	33,415	329,036
1968	614	2,105	17,608	13,802	88,234	167,783	34,732	324,878
1969	726	2,231	22,880	15,080	104,177	201,466	41,594	388,154
1970	831	2,402	30,758	17,099	139,398	253,258	41,184	484,930
1971	938	2,405	29,698	18,647	151,357	264,980	44,720	512,745
1972	964	2,652	26,248	20,440	143,034	248,201	42,890	484,429
1973	1,163	3,166	25,521	23,001	142,304	247,785	49,234	492,092
1974	1,170	3,370	30,657	24,739	172,828	302,301	56,599	591,664
1975	1,042	3,477	32,354	25,751	173,134	327,367	59,755	622,880
1976	1,001	3,281	30,241	24,154	151,207	321,192	55,688	586,764
1977	905	3,565	23,840	25,149	135,568	281,548	49,394	519,917
1978	862	3,614	20,192	28,661	130,716	279,261	47,995	511,301
1979	810	4,085	20,168	31,261	138,074	312,643	55,142	562,183
1980	941	4,267	22,363	30,760	158,944	337,609	53,562	608,446
1981	863	4,353	23,644	29,970	170,372	339,676	58,213	627,091

SOURCE: Michigan Department of State Police, Uniform Crime Report, 1971 through 1981 (East Lansing: annually), pp. 9-24; Michigan Law Enforcement Officials Report on Crime, 1968 through 1970 (East Lansing: annually), and special release.

TABLE VIII-3. INDEX OF CRIMINAL OFFENSES PER 100,000 INHABITANTS IN THE UNITED STATES: 1962-1981

Year	Murder and nonnegligent manslaughter	Forcible rape	Robbery	Aggravated assault	Burglary	Larceny and theft	Motor vehicle theft	Total crime index
1962	4.6	9.4	59.5	87.9	532.0	1,117.4	196.8	2,007.6
1963	4.6	9.3	61.6	91.7	572.9	1,211.0	215.9	2,167.0
1964	4.9	11.2	68.0	105.4	630.9	1,306.8	246.5	2,373.7
1965	5.1	12.1	71.5	110.4	658.7	1,320.5	255.9	2,434.2
1966	5.6	13.2	80.6	119.4	716.6	1,433.4	286.0	2,654.7
1967	6.2	13.9	102.5	129.2	821.5	1,565.4	333.0	2,971.8
1968	6.9	15.8	131.5	142.7	926.6	1,735.1	391.7	3,350.2
1969	7.3	18.4	148.0	153.3	978.2	1,918.2	434.8	3,658.1
1970	7.8	18.6	171.7	163.6	1,078.4	2,065.5	455.3	3,960.9
1971	8.6	20.4	187.5	177.5	1,156.4	2,131.3	458.3	4,140.0
1972	9.0	22.5	180.7	188.8	1,140.8	1,993.6	426.1	3,961.4
1973	9.4	24.5	183.1	200.5	1,222.5	2,071.9	442.6	4,154.4
1974	9.8	26.2	209.3	215.8	1,437.7	2,489.5	462.2	4,850.4
1975	9.6	26.3	218.2	227.4	1,525.9	2,804.8	469.4	5,281.7
1976	8.8	26.4	195.8	228.7	1,439.5	2,921.3	446.1	6,266.4
1977	8.8	29.1	187.1	241.5	1,410.9	2,729.9	447.6	5,055.1
1978	9.0	30.8	191.3	255.9	1,423.7	2,743.9	454.7	5,109.3
1979	9.7	34.5	212.1	279.1	1,499.1	2,988.4	498.5	5,521.5
1980	10.2	36.4	243.5	290.6	1,668.2	3,156.3	494.6	5,899.9
1981	9.8	35.6	250.6	280.9	1,632.1	3,122.3	468.7	5,799.9

SOURCE: Federal Bureau of Investigation, Uniform Crime Reports for the United States (Washington, D.C.: annually) Table 1.

NOTE: Populations are the Bureau of Census provisional estimates as of July 1, except April 1, 1970 and 1980, preliminary census counts, and are subject to change.

TABLE VIII-4. SELECTED NON-INDEX CRIME OFFENSES IN MICHIGAN, BY TYPE: 1975-1981

Offenses	1975	1976	1977	1978	1979	1980	1981
Assault (nonaggravated)	44,605	43,310	46,126	53,029	58,478	59,648	58,881
Arson	5,499	5,412	5,641	5,728	7,745[a]	7,077	8,812
Weapons (possession, etc.)	12,167	10,918	9,895	7,004	7,192	6,952	6,329
Driving under the influence	33,440	30,988	31,982	36,776	45,076	47,661	51,390
All other crimes	143,508	132,714	108,822	57,411	514,861	513,385	488,343
TOTAL	568,658	537,759	546,424	573,469	633,352	634,723	613,755

SOURCE: Michigan Department of State Police, Uniform Crime Report, 1975 through 1981 (East Lansing: annually).

a. 1979 arson figures are adjusted.

TABLE VIII-5. SELECTED NON-INDEX CRIME OFFENSES PER 100,000 INHABITANTS IN MICHIGAN: 1975-1981

Offenses	1975	1976	1977	1978	1979	1980	1981
Assault (nonaggravated)	487.1	481.2	505.3	578.0	635.1	645.6	636.0
Arson	60.1	59.4	61.8	62.4	96.7	76.6	95.2
Weapons (possession, etc.)	132.9	119.9	108.4	76.3	78.1	75.2	69.0
Driving under the influence	365.2	340.4	350.3	400.8	489.6	515.9	555.1
Other	1,567.2	1,457.8	1,192.0	625.3	n.a.	5,556.9	5,274.6
TOTAL	6,210.1	5,906.8	5,985.6	6,215.9	6,879.0	6,870.3	6,629.2

SOURCE: Michigan Department of State Police, Uniform Crime Report, 1975 through 1981 (East Lansing: annually).

NOTE: Michigan population, as determined in 1980 by the Bureau of the Census, is 9,258,344.

TABLE VIII-6. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1980 AND 1981

		Index crimes							
County	Year	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	Total nonindex
Alcona	1980	1	0	1	15	332	309	9	340
	1981	1	8	1	22	268	298	8	344
Alger	1980	0	0	4	14	126	193	15	572
	1981	0	0	4	15	151	187	16	561
Allegan	1980	2	22	38	113	852	1,568	146	4,967
	1981	1	30	32	130	600	1,444	118	4,896
Alpena	1980	0	8	5	41	264	860	40	1,312
	1981	0	9	8	39	278	845	51	1,478
Antrim	1980	0	4	0	13	310	385	20	860
	1981	0	2	2	8	201	393	18	715
Arenac	1980	0	1	3	19	208	323	27	623
	1981	0	7	7	40	203	312	24	698
Baraga	1980	0	0	5	21	81	91	12	460
	1981	0	1	0	20	94	123	19	401
Barry	1980	0	10	22	93	515	1,055	[illegible]5	2,857
	1981	1	17	9	68	423	932	47	2,354
Bay	1980	1	39	59	254	1,355	4,489	220	8,700
	1981	2	28	52	189	1,403	4,024	239	7,322
Benzie	1980	0	6	5	24	237	492	34	1,323
	1981	0	0	5	27	132	391	17	1,288
Berrien	1980	10	102	316	835	3,645	8,958	547	20,787
	1981	15	107	303	808	3,063	7,879	407	18,653

TABLE VIII-6. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1980 AND 1981 (cont.)

County	Year	Index crimes							Total nonindex
		Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	
Eaton	1980	5	33	58	64	567	2,193	148	3,262
	1981	1	17	30	87	571	2,256	111	3,267
Emmet	1980	1	8	8	40	283	672	45	3,152
	1981	0	2	9	31	310	656	56	3,163
Genesee	1980	45	264	991	2,814	10,074	21,153	1,778	25,711
	1981	40	273	1,165	2,993	12,230	21,929	1,684	23,441
Gladwin	1980	0	4	6	19	415	519	27	1,240
	1981	0	8	6	29	369	516	36	993
Gogebic	1980	0	5	9	20	170	417	72	1,696
	1981	0	2	1	29	174	404	41	2,219
Grand Traverse	1980	0	14	24	64	726	2,116	139	4,290
	1981	0	14	16	56	679	1,925	91	4,281
Gratiot	1980	0	9	19	44	343	894	47	2,021
	1981	0	4	8	28	327	774	40	1,936
Hillsdale	1980	3	9	32	62	651	1,159	63	3,602
	1981	3	4	8	74	574	993	53	3,467
Houghton	1980	0	7	4	49	182	547	33	1,243
	1981	0	4	6	34	237	588	38	1,327
Huron	1980	0	10	5	39	424	812	52	3,359
	1981	0	3	1	45	334	764	41	2,854
Ingham	1980	7	100	295	708	4,305	12,570	707	19,358
	1981	13	161	217	843	4,541	13,000	556	18,612

TABLE VIII-6. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1980 AND 1981 (cont.)

		Index crimes							
County	Year	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	Total nonindex
Ionia	1980	3	13	27	120	491	1,374	84	3,285
	1981	2	15	23	142	502	1,382	81	4,147
Iosco	1980	1	12	6	60	481	965	50	1,974
	1981	3	5	7	57	389	836	41	1,788
Iron	1980	0	1	3	21	153	195	12	589
	1981	0	4	7	23	148	255	23	584
Isabella	1980	1	11	14	43	467	1,973	73	4,446
	1981	1	24	20	57	443	1,679	63	4,217
Jackson	1980	8	54	121	708	2,271	5,275	341	13,145
	1981	9	101	170	842	2,591	5,810	388	14,840
Kalamazoo	1980	6	68	181	619	2,478	7,366	363	10,200
	1981	3	23	287	1,012	3,344	10,019	367	14,801
Kalkaska	1980	0	6	3	25	329	446	26	1,282
	1981	0	6	3	48	329	446	20	1,190
Kent	1980	33	275	650	1,365	6,947	17,488	1,152	33,684
	1981	27	290	673	1,355	7,392	18,244	1,048	30,268
Keweenaw	1980	0	1	0	2	30	24	2	72
	1981	0	0	0	4	33	27	3	94
Lake	1980	0	3	4	23	459	318	9	536
	1981	1	1	2	12	473	268	14	498
Lapeer	1980	0	21	17	62	574	1,590	133	3,726
	1981	2	18	16	89	572	1,735	107	4,080

TABLE VIII-2. INDEX OF CRIMINAL OFFENSES PER 100,000 INHABITANTS IN MICHIGAN: 1962-1981

Year	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny and theft	Motor vehicle theft	Total crime index
1962	3.2	11.8	72.7	98.6	547.2	1,465.8	185.6	2,384.9
1963	3.0	11.7	78.2	91.5	547.1	1,558.4	211.1	2,500.9
1964	3.1	14.9	82.6	105.7	560.3	1,585.3	258.6	2,610.4
1965	4.1	16.8	94.3	123.7	658.3	1,597.7	289.7	2,784.7
1966	4.3	21.7	145.0	125.0	849.8	1,808.0	324.4	3,279.0
1967	6.0	21.4	186.2	148.6	1,057.5	2,005.7	387.2	3,812.7
1968	7.1	24.2	202.5	158.7	1,014.7	1,929.4	399.4	3,736.0
1969	8.3	25.4	260.6	171.7	1,186.4	2,294.3	473.7	4,420.4
1970	9.3	27.0	345.6	192.1	1,566.1	2,845.3	462.7	5,448.0
1971	10.4	26.7	330.1	207.3	1,682.5	2,945.5	497.1	5,699.7
1972	10.7	29.4	291.2	226.8	1,587.0	2,753.8	475.9	5,374.8
1973	11.9	34.9	281.7	253.9	1,570.5	2,734.6	543.4	5,430.9
1974	12.8	37.0	336.3	271.4	1,895.7	3,315.8	620.8	6,489.7
1975	11.4	38.0	353.3	281.2	1,890.7	3,575.1	652.6	6,802.2
1976	11.2	36.0	332.2	265.3	1,660.9	3,528.0	611.7	6,445.1
1977	9.3	38.7	261.1	272.0	1,514.9	3,126.7	542.7	5,765.4
1978	9.9	39.3	219.7	311.9	1,422.5	3,039.1	522.3	5,564.3
1979	8.8	44.4	219.1	339.5	1,499.7	3,395.7	598.9	6,106.0
1980	10.2	46.2	242.1	332.9	1,720.4	3,654.3	579.8	6,585.9
1981	9.0	47.0	255.0	324.0	1,840.0	3,669.0	629.0	6,773.0

SOURCE: Michigan Department of State Police, *Uniform Crime Report*, 1971 through 1981 (East Lansing: annually), pp. 9-24; and *Michigan Law Enforcement Officials Report on Crime*, 1960 through 1970 (East Lansing: annually), and special release.

NOTE: The Bureau of the Census indicates the 1980 Michigan population to be 9,238,344.

TABLE VIII-6. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1980 AND 1981 (cont.)

		Index crimes							
County	Year	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	Total nonindex
Branch	1980	0	6	12	54	323	1,277	49	2,346
	1981	0	7	5	50	369	1,198	44	2,329
Calhoun	1980	13	53	226	463	2,267	5,165	302	10,080
	1981	11	74	201	499	2,418	5,447	277	9,125
Cass	1980	5	20	16	162	698	1,557	95	3,443
	1981	1	17	17	163	689	1,608	84	2,996
Charlevoix	1980	0	9	3	31	366	746	42	1,311
	1981	0	3	2	23	316	661	35	1,532
Cheboygan	1980	0	3	2	40	400	621	40	1,622
	1981	2	4	6	28	383	655	34	1,515
Chippewa	1980	1	5	19	51	395	1,102	94	2,497
	1981	4	13	6	112	442	1,094	78	3,664
Clare	1980	0	13	7	46	744	1,134	42	2,674
	1981	0	10	6	44	885	1,027	48	1,881
Clinton	1980	1	10	16	49	269	920	55	1,750
	1981	1	19	11	42	329	929	59	1,673
Crawford	1980	0	4	2	14	362	398	22	924
	1981	1	4	2	24	306	523	21	740
Delta	1980	1	3	3	46	402	975	51	1,815
	1981	1	4	0	32	412	1,007	54	1,984
Dickinson	1980	0	3	3	14	163	480	31	1,094
	1981	1	3	7	18	158	570	30	1,005

TABLE VIII-6. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1980 AND 1981 (cont.)

		Index crimes							
County	Year	Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	Total nonindex
Osceola	1980	5	7	2	25	276	379	34	1,023
	1981	0	4	8	29	287	341	28	1,007
Oscoda	1980	2	0	0	14	275	289	13	630
	1981	0	1	3	17	190	219	7	538
Otsego	1980	2	6	4	19	289	520	28	1,298
	1981	0	7	1	12	215	464	24	1,119
Ottawa	1980	2	22	20	104	1,031	3,543	162	6,666
	1981	0	29	29	125	1,030	3,443	163	6,991
Presque Isle	1980	0	1	0	15	166	222	10	360
	1981	2	5	0	12	129	199	10	293
Roscommon	1980	1	6	6	35	548	831	74	1,955
	1981	0	12	7	25	560	725	72	1,863
Saginaw	1980	29	135	376	1,313	4,114	10,113	695	26,641
	1981	25	138	465	1,210	4,675	10,903	602	20,738
St. Clair	1980	2	47	58	226	2,195	5,196	330	14,274
	1981	3	44	61	242	2,191	5,088	272	13,375
St. Joseph	1980	4	21	17	78	473	1,457	58	4,868
	1981	3	19	19	65	474	1,480	83	4,432
Sanilac	1980	1	8	12	58	468	767	58	1,183
	1981	0	10	2	33	448	726	53	2,053
Schoolcraft	1980	0	7	3	19	158	218	19	588
	1981	0	3	0	24	157	169	15	618

TABLE VIII-6. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1980 AND 1981 (cont.)

County	Year	Index crimes							Total nonindex
		Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	
Shiawassee	1980	1	31	31	135	910	2,139	161	3,834
	1981	0	39	17	101	800	2,031	87	4,132
Tuscola	1980	2	34	8	77	497	972	86	2,863
	1981	5	21	12	110	496	839	78	2,745
Van Buren	1980	3	25	45	206	1,122	2,091	170	5,554
	1981	1	40	33	247	984	2,128	152	5,768
Washtenaw	1980	12	113	328	969	4,372	12,219	1,258	19,298
	1981	16	141	257	871	4,160	11,884	1,193	20,408
Wayne	1980	635	1,736	15,492	11,664	56,260	86,730	31,609	121,008
	1981	577	1,608	16,723	9,889	64,087	90,178	37,091	120,901
Wexford	1980	0	17	6	36	585	1,152	62	2,232
	1981	1	8	8	82	501	1,130	54	1,767
TOTAL	1980	941	4,267	22,363	30,760	158,944	337,609	53,562	634,723
	1981	863	4,353	23,644	29,970	170,372	339,676	58,213	613,755

SOURCE: Michigan Department of State Police, Uniform Crime Report, 1981, and special release.

IX. ELECTIONS AND GOVERNMENT ORGANIZATIONS

Statistics on governmental organization are collected on the occasion of each Census of Governments conducted by the U.S. Bureau of the Census. That census also is a source of considerable detail on government financing and employment, the subject of chapter X.

Other major sources of information regarding Michigan government organization are the biennial Michigan Manual, the Journal of the Senate, and the Journal of the House. In addition, The Book of the States presents information on all states and is a good source for comparative statistics.

Table IX-5 is the only table in the chapter which gives an indication of the Michigan legislature output. It presents some of the scarce readily quantifiable data describing the legislature. For those interested in assessing legislative performance, the Citizens Conference on State Legislatures has developed "The Legislative Evaluation Study." This body is a national , nonprofit, nonpartisan organization whose purpose is to help state legislatures improve themselves.

On 1 June 1977 revised Michigan laws relating to campaign financing took effect. As under the old laws, the spending reports of candidates for state will be on file with the Secretary of State. However, the responsibility for filing is shifted to the candidate (or treasurer of a committee) instead of resting with county clerk. Reports still must be filed with the clerk of the county in which the candidate resides.

There is a spending limit of one million dollars for gubernatorial candidates who accept "qualifying contributions" (the state counterpart of federal matching funds). There no longer are spending limits for other offices.

In addition to the filing and expenditure alterations, an organizational change has been made. Each candidate must have only one "candidate committee." Candidates choosing to have more than one committee must report these as "other committees." The Secretary of State is to keep the records on file by committee name (I.D. code) only, not by the candidate supported or by office and district.

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TABLE IX-1. OFFICIAL CANVASS FOR STATEWIDE OFFICES: 2 NOVEMBER 1982

Office	Party	Vote
Governor and Lt. Governor		
James J. Blanchard (Gov.) Martha W. Griffiths (Lt. Gov.)	Democratic	1,561,291
Richard H. Headlee (Gov.) Thomas E. Brennan (Lt. Gov.)	Republican	1,369,582
Robert E. Tisch (Gov.) Clair White (Lt. Gov.)	Tisch Independent Citizens	80,288
Dick M. Jacobs (Gov.) Steven J. Furr (Lt. Gov.)	Libertarian	15,603
James O. Phillips (Gov.) DeLoyd G. Hesselink (Lt. Gov.)	American Independent	7,356
Tim Craine (Gov.) Elizabeth Ziers (Lt. Gov.)	Socialist Workers	3,682
Martin P. McLaughlin (Gov.) Ruth Keedy (Lt. Gov.)	Workers League	1,980
Secretary of State		
Richard H. Austin	Democtratic	1,996,221
Elizabeth A. Andrus	Republican	900,842
John L. Wagner	American Independent	22,976
Brian R. Wright	Libertarian	19,964
Attorney General		
Frank J. Kelley	Democratic	1,707,064
L. Brooks Patterson	Republican	1,238,755
Robert W. Roddis	Libertarian	21,728
United States Senator		
Donald W. Riegle, Jr.	Democratic	1,728,793
Philip E. Ruppe	Republican	1,223,288
Bette Erwin	Libertarian	19,131
Deniel Eller	American Independent	12,660
Helen Halyard	Workers League	6,085
Steve Beumer	Socialist Workers	4,335

TABLE IX-1. OFFICIAL CANVASS FOR STATEWIDE OFFICES: 2 NOVEMBER 1982 (cont.)

Office	Party	Vote
State Board of Education		
Two elected - term ending 1/1/91		
Barbara Roberts Mason	Democratic	1,417,524
Carroll Hutton	Democratic	1,381,474
Jacqueline McGregor	Republican	1,105,714
Ronald G. Erickson	Republican	1,077,216
Carmen Bradley	Tisch Indep. Citizens	60,598
Denise Kline	Libertarian	40,369
Ruthann A. Wagner	American Independent	36,069
Frederick J. Dechow	Libertarian	30,228
Peggy Goldman Frankie	Independent Candidate	28,412
John P. Santuci, Jr.	American Independent	27,552
Board of Regents of University of Michigan		
Two elected - term ending 1/1/91		
Sarah Goddard Power	Democratic	1,469,535
Thomas A. Roach	Democratic	1,405,980
Ellen M. Templin	Republican	1,038,286
Rockwell T. Gust, Jr.	Republican	993,699
Alan Kurczynski	Libertarian	49,538
Louis Goldberg	Libertarian	45,316
Geraldine A. Santuci	American Independent	37,887
Anthony V. Giamanco	American Independent	33,113
Board of Trustees of Michigan State University		
Two elected - term ending 1/1/91		
Bobby D. Crim	Democratic	1,512,875
John B. Bruff	Democratic	1,332,164
Laura Heuser	Republican	1,067,992
George A. McManus, Jr.	Republican	1,043,974
Stephen Patric O'Keefe	Libertarian	62,160
Timothy R. Oren	Libertarian	38,772
Howard H. Hatt	American Independent	31,388
Orlando J. Buria	American Independent	23,199
Board of Governors of Wayne State University		
Two elected - term ending 1/1/91		
Mildred Jeffrey	Democratic	1,403,245
Michael Einheuser	Democratic	1,363,351
Nancy Boykin	Republican	1103,602
Sam Trentacosta	Republican	952,277
James H. Wagner	American Independent	47,305
Richard M. Ferrell	Libertarian	45,007
Thomas W. Jones	Libertarian	40,466
William J. Laubscher, Jr.	American Independent	29,047

SOURCE: Michigan Secretary of State, a special release.

TABLE IX-2. OFFICIAL CANVASS FOR REPRESENTATIVES IN CONGRESS: 2 NOVEMBER 1982

Congressional district	Candidates	Party	Vote
1	John Conyers, Jr.	Democratic	125,517
1	Bill Krebaum	Libertarian	3,188
1	Eddie Benjamin	Workers League	1,140
2	Carl D. Pursell	Republican	106,960
2	George Wahr Sallade	Democratic	53,040
2	Barbara J. McKenna	Libertarian	3,412
3	Howard Wolpe	Democratic	96,842
3	Richard L. Milliman	Republican	73,315
3	Robert S. Holderbaum	Libertarian	1,111
3	Lizzie M. Hudson	American Independent	693
4	Mark D. Siljander	Republican	87,489
4	David A. Masiokas	Democratic	56,877
4	Richard Wagner	Libertarian	1,544
4	Robert C. Dienkhahn	American Independent	690
5	Harold S. Sawyer	Republican	98,650
5	Stephen V. Monsma	Democratic	87,229
6	Bob Carr	Democratic	84,778
6	Jim Dunn	Republican	78,388
6	James E. Hurrell	Libertarian	1,818
7	Dale E. Kildee	Democratic	118,538
7	George R. Darrah	Republican	36,303
7	Dennis L. Berry	Libertarian	1,842
7	David Freund	Workers League	568
8	Bob Traxler	Democratic	113,515
8	Sheila M. Hart	Libertarian	11,219
9	Guy Vander Jagt	Republican	112,504
9	Gerald D. Warner	Democratic	60,932
10	Don Albosta	Democratic	102,048
10	Lawrence W. Reed	Republican	66,080
10	William Spiers	Libertarian	1,558
11	Bob Davis	Republican	106,039
11	Kent Bourland	Democratic	69,181
12	David E. Bonior	Democratic	103,851
12	Ray Contesti	Republican	52,312
12	Keith P. Edwards	Libertarian	1,501

TABLE IX-2. OFFICIAL CANVASS FOR REPRESENTATIVES IN CONGRESS: 2 NOVEMBER 1982 (cont.)

Congressional district	Candidates	Party	Vote
13	George W. Crockett, Jr.	Democratic	108,351
13	Letty Gupta	Republican	13,732
13	Fred Mazelis	Workers League	1,107
14	Dennis M. Hertel	Democratic	116,421
14	Harold H. Dunn	Libertarian	6,175
15	William D. Ford	Democratic	94,950
15	Mitchell Moran	Republican	33,904
15	Guy R. Collins	American Independent	1,555
16	John D. Dingell	Democratic	114,006
16	David K. Haskins	Republican	39,227
16	Susan Apstein	Socialist Workers	1,071
16	Paul Scherrer	Workers League	450
17	Sander Levin	Democratic	116,901
17	Gerald E. Rosen	Republican	55,620
17	Virginia L. Cropsey	Libertarian	2,955
18	William S. Broomfield	Republican	132,902
18	Allen J. Sipher	Democratic	45,545
18	Joseph Cote	Libertarian	1,813

SOURCE: Michigan Secretary of State, a special release.

TABLE IX-3. GENERAL ELECTION STATE PROPOSAL RESULTS: 2 NOVEMBER 1982

Proposal	Subject	Number of votes Yes	Number of votes No
A	A proposal to allow the legislature to pass laws to reform their existing constitutional exemption from civil arrest and process during legislative sessions. The Michigan Constitution now provides: "Senators and representatives shall be privileged from civil arrest and civil process during sessions of the legislature and for five days next before the commencement and after the termination thereof. They shall not be questioned in any other place for any speech in either house." 1. The proposed amendment would allow the legislature to pass laws to reform this exemption.	1,804,728	1,029,743
B	A proposal to create by constitution a Michigan Department of State Police, provide for its personnel, prescribe its duties and require minimum staffing. The proposed amendment would: 1. Change the Michigan Department of State Police from a department created by law to a department created by the constitution. 2. Make director of state police head of the Department. 3. Set out powers and duties of the department and its officers. 4. Permit reduction of enlisted personnel below the number employed as of April 1, 1980, only in the event of and in proportion to a decrease in the state's population.	720,915	2,111,802
C	Proposal to prevent a lender from using a "due-on-sale" clause to foreclose a mortgage or land contract when the property is sold, unless security is impaired. This proposed law would: 1. Prohibit court foreclosure of mortgage or land contract when based on transfer of mortgagor's or buyer's interest; EXCEPT where transfer is proved to impair security interest. 2. If court foreclosure is based on "due-on-sale" clause and lender has not proved security impaired, then extend time to redeem property from 6 to 48 months. 3. Prohibit without exception foreclosure of mortgage by advertisement when based on transfer of mortgagor's interest. 4. Apply to existing and future mortgages and land contracts.	1,344,463	1,445,897
D	Proposal to require hearings on all utility rate increases, abolish rate adjustment clauses and establish procedures in rate hearings. The proposed law would: 1. When rate increase is requested, require full and complete hearing on all costs of utility service, including fuel costs. 2. Abolish existing adjustment clauses that allow rate changes. 3. Allow only one rate increase hearing per utility at the same time, unless hearings are for different services provided by the utility.	1,472,442	1,431,884

TABLE IX-3. GENERAL ELECTION STATE PROPOSAL RESULTS: 2 NOVEMBER 1982 (cont.)

Proposal	Subject	Number of votes	
		Yes	No
E	A Proposal expressing the people's desire for a mutual nuclear weapons freeze with the Soviet Union and requiring state officials to convey that desire to the President of the United States and other federal officials. The proposed law would: 1. Establish as a "finding and declaration" the danger of nuclear war and reduction of that danger by a mutual agreement between the USA and USSR to establish nuclear freeze. 2. Require House Clerk and Senate Secretary to send to President and other federal officials a communication urging: a. The USA propose to USSR a mutual nuclear weapons freeze, both countries agreeing to halt the testing, production, and further deployment of all nuclear weapons, missiles, and delivery systems in a way that can be checked and verified by both. b. Transfer of nuclear weapons funds to civilian use.	1,585,809	1,216,172
G	A proposal for an elected public service commission. The proposed amendment would: 1. Establish a 5 member Public Service Commission to be elected for 4 year terms, with no more than 3 terms expiring at same time. 2. Provide that the Commission perform the duties currently assigned to the appointed Public Service Commission. 3. Require nomination of candidates for Commission to be by partisan political party convention and election of candidates to be on non-partisan portion of ballot. 4. Provide that each Commissioner to be elected shall appear on the ballot as a separate office.	1,026,160	1,771,098
H	Proposal to prohibit certain adjustment clauses; prohibit rate increases without prior notice and hearing; and prohibit state legislators from accepting employment with a utility for two years. The proposed law would: 1. Prohibit certain adjustment clauses and provide that utilities may, upon request, recover reasonable and prudent costs of fuel, purchased gas or purchased electricity, only after "full and complete hearing" on such costs. 2. Permit separate hearings to be held on any change in cost of fuel or purchased gas at the same time as hearings on general rate case. 3. Prohibit members of the present legislature from working for any Michigan utility for two years after leaving legislative office.	1,670,381	1,131,990

SOURCE: Michigan Department of State, special release.

TABLE IX-4. MICHIGAN REPRESENTATION IN THE STATE HOUSE OF REPRESENTATIVES, BY DISTRICT: 1983-1984

District	Representative	Party	District	Representative	Party
1	Michael J. Bennane	(D)	25	Dennis M. Dutko	(D)
2	Burton Leland	(D)	26	Mary Ellen Parrott	(D)
3	Matthew McNeely	(D)	27	Vincent "Joe" Porreca	(D)
4	Alma G. Stallworth	(D)	28	Robert A. DeMars	(D)
5	Teola P. Hunter	(D)	29	Rick Sitz	(D)
6	Morris Hood, Jr.	(D)	30	Jeffrey D. Padden	(D)
7	Nelson W. Saunders	(D)	31	William Runco	(R)
8	Carolyn Cheeks Kilpatrick	(D)	32	Richard A. Young	(D)
9	Ethel Terrell	(D)	33	William R. Keith	(D)
10	Virgil C. Smith, Jr.	(D)	34	John Bennett	(D)
11	Stanley Stopczynski	(D)	35	Jack Edwin Kirksey	(R)
12	Curtis Hertel	(D)	36	Gerald H. Law	(R)
13	William R. Bryant, Jr.	(R)	37	Edward E. Mahalak	(D)
14	Joseph Young, Sr.	(D)	38	Justine Barns	(D)
15	Joseph Young, Jr.	(D)	39	Jerry C. Bartnik	(D)
16	Juanita Watkins	(D)	40	Timothy L. Walberg	(R)
17	Raymond M. Murphy	(D)	41	Michael E. Nye	(R)
18	Sidney Ouwinga	(R)	42	Glenn Oxender	(R)
19	Donald Van Singel	(R)	43	Carl F. Gnodtke	(R)
20	Rudy J. Nichols	(R)	44	Lad S. Stacey	(R)
21	Richard F. Sullivan	(D)	45	James "Mick" Middaugh	(R)
22	Gary M. Owen	(D)	46	Mary C. Brown	(D)
23	Philip E. Hoffman	(R)	47	Paul Wartner	(R)
24	Robert D. McGee	(R)	48	Donald H. Gilmer	(R)

TABLE VIII-6. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1980 AND 1981 (cont.)

County	Year	Index crimes							Total nonindex
		Murder and nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	
Leelanau	1980	0	3	4	13	119	236	11	963
	1981	0	4	0	5	82	196	14	817
Lenawee	1980	2	24	31	141	791	2,678	149	5,613
	1981	1	16	18	117	903	2,675	150	5,427
Livingston	1980	3	40	35	219	1,155	2,832	282	7,709
	1981	1	23	37	152	1,382	2,744	237	6,813
Luce	1980	0	1	1	17	140	208	22	844
	1981	1	1	1	9	117	175	11	529
Mackinac	1980	0	3	5	27	246	655	18	1,174
	1981	2	4	4	24	262	607	18	1,240
Macomb	1980	26	176	612	1,690	8,179	27,862	4,443	58,806
	1981	30	205	652	1,940	9,193	25,981	4,426	56,110
Manistee	1980	1	8	6	33	429	600	40	1,297
	1981	0	4	6	38	338	563	24	1,291
Marquette	1980	0	19	15	135	617	2,338	129	7,250
	1981	2	24	10	141	651	2,374	112	6,665
Mason	1980	0	18	8	29	305	1,008	64	2,755
	1981	0	19	4	28	277	850	45	2,281
Mecosta	1980	3	6	20	43	447	1,482	61	3,088
	1981	0	5	17	62	397	1,367	59	3.099
Menominee	1980	1	4	5	37	319	539	36	1,476
	1981	1	5	3	50	331	615	43	1,461

TABLE VIII-6. NUMBER OF CRIMINAL OFFENSES REPORTED IN MICHIGAN COUNTIES: 1980 AND 1981 (cont.)

County	Year	Index crimes							
		Murder nonnegligent manslaughter	Rape	Robbery	Aggravated assault	Burglary	Larceny	Motor vehicle theft	Total nonindex
Midland	1980	0	15	121	76	1,249	2,635	134	5,466
	1981	0	20	50	74	953	2,234	99	4,739
Missaukee	1980	0	1	2	3	134	160	12	218
	1981	0	1	1	8	115	140	7	200
Monroe	1980	8	30	64	207	1,473	3,005	409	7,553
	1981	4	20	67	195	1,450	2,787	375	6,615
Montcalm	1980	1	23	44	57	550	878	74	1,951
	1981	1	19	24	55	611	1,014	67	3,527
Montmorency	1980	0	0	0	2	200	147	14	251
	1981	0	2	1	7	146	128	3	192
Muskegon	1980	12	93	215	951	2,951	7,880	345	13,193
	1981	12	78	224	1,065	3,313	8,067	316	11,644
Newaygo	1980	1	8	19	43	556	768	56	1,346
	1981	3	19	16	45	499	743	48	1,124
Oakland	1980	32	310	1,492	2,600	17,275	38,533	5,045	81,451
	1981	24	289	1,484	2,486	17,073	37,441	5,452	79,246
Oceana	1980	0	16	2	28	257	439	33	971
	1981	0	14	7	27	239	370	27	935
Ogemaw	1980	2	4	7	30	597	527	40	1,574
	1981	1	5	11	35	465	461	53	1,466
Ontonagon	1980	0	0	3	3	82	143	13	269
	1981	0	1	1	22	66	144	13	345

TABLE IX-4. MICHIGAN REPRESENTATION IN THE STATE HOUSE OF REPRESENTATIVES, BY DISTRICT: 1983-1984 (cont.)

District	Representative	Party	District	Representative	Party
49	Richard Fitzpatrick	(D)	73	Nick Ciaramitaro	(D)
50	Michael J. Griffin	(D)	74	John M. Maynard	(D)
51	Frederick Dillingham	(R)	75	Kenneth J. DeBeaussaert	(D)
52	Margaret O'Connor	(R)	76	James A. Docherty	(D)
53	Perry Bullard	(D)	77	Dick Allen	(R)
54	Paul Hillegonds	(R)	78	Keith Muxlow	(R)
55	William Van Regenmorter	(R)	79	John D. Cherry, Jr.	(D)
56	Ernest Nash	(R)	80	Floyd Clack	(D)
57	David C. Hollister	(D)	81	Robert Emerson	(D)
58	Debbie Stabenow	(D)	82	Thomas E. Scott	(D)
59	H. Lynn Jondahl	(D)	83	Charles L. Mueller	(R)
60	Willis Bullard, Jr.	(R)	84	John G. Strand	(R)
61	Mat J. Dunaskiss	(R)	85	James E. O'Neill, Jr.	(D)
62	Charlie J. Harrison, Jr.	(D)	86	Lewis N. Dodak	(D)
63	Gordon R. Sparks	(R)	87	Francis R. Spaniola	(D)
64	Maxine Berman	(D)	88	Robert Bender	(R)
65	Ruth B. McNamee	(R)	89	Gary L. Randall	(R)
66	Wilfred B. Webb	(D)	90	Victor C. Krause	(R)
67	Joseph Forbes	(D)	91	Walter J. DeLange	(R)
68	Shirley Johnson	(R)	92	Thomas C. Mathieu	(D)
69	Wilbur V. Brotherton	(R)	93	Vernon J. Ehlers	(R)
70	Lloyd R. Weeks	(D)	94	Jelt Sietsema	(D)
71	Sal Rocca	(R)	95	James K. Dressel	(R)
72	David H. Evans	(D)	96	Marvin L. Knight	(R)

TABLE IX-4. MICHIGAN REPRESENTATION IN THE STATE HOUSE OF REPRESENTATIVES, BY DISTRICT: 1983-1984 (cont.)

District	Representative	Party	District	Representative	Party
97	Edgar A. Geerlings	(R)	104	Thomas G. Power	(R)
98	Ed Giese	(R)	105	Thomas Alley	(D)
99	Colleen House Engler	(R)	106	John D. Pridnia	(R)
100	J. Michael Busch	(R)	107	Pat Gagliardi	(D)
101	Thomas L. Hickner	(D)	108	Dominic J. Jacobetti	(D)
102	Michael D. Hayes	(R)	109	Jack L. Gingrass	(D)
103	Ralph Ostling	(R)	110	Donald W. Koivisto	(D)

SOURCE: Michigan Department of Management and Budget, special release.

(R): Republican

(D): Democrat

TABLE IX-5. LEGISLATIVE AND EXECUTIVE ACTION ON BILLS: 1962-1981

	House activity			Senate activity			Gubernatorial action	
Year	House bills introduced	House bills passed House	Senate bills passed House	Senate bills introducted	Senate bills passed Senate	House bills passed Senate	Bills presented to the Governor	Bills vetoed[a]
1962	782	244	92	458	150	161	253	10
1963	840	239	87	383	177	167	254	3
1964	958	250	112	529	215	193	305	8
1965	1,031	377	178	699	287	264	442	26
1966	1,021	394	106	539	184	260	366	15
1967[b]	1,300	267	152	823	239	168	320	0
1968	971	276	147	585	241	225	372	12
1969	1,924	310	159	1,114	321	198	357	11
1970	974	336	112	669	197	151	264[c]	10
1971	1,840	376	99	1,111	204	136	235	2
1972	578	218[d]	131	383	140	257[d]	388[c]	3
1973	1,528	275	105	1,075	178	123	215	5
1974	792	264	141	4,435	163	251	390	4
1975	1,877	420	114	1,247	208	246	344	8
1976	782	278	176	497	199	294	468	14
1977	1,835	396	105	1,285	200	225	322	3
1978	914	430	219	460	284	433	657	15
1979	1,369	283	85	903	176	146	225	5
1980	790	354	202	430	208	354	546	22
1981	1,370	373	76	610	147	167	234	2

SOURCE: State of Michigan, Journal of the Senate (Lansing: annually).

a. One veto was overriden during 1977.
b. Including extra session.
c. In 1970 the legislature recalled one bill; in 1972, two.
d. Bills introduced it the first year of a new legislature carry over into the second year; since 1972 was the second year of the 76th legislature, the excess of House bills passing the Senate over those passing the House is explained.

X. GOVERNMENTAL FINANCE AND EMPLOYMENT

Data on the federal tax burden are rough estimates prepared by the Tax Foundation, Inc., a nonprofit research foundation. In developing figures for each state, the Tax Foundation allocates individual income tax liabilities on the basis of data reported by the Internal Revenue Service in its Statistics of Income series, the same documents from which Tables X-3 and X-4 were developed. The distribution of personal property income; the assumption is that one-half of the levy is passed on to consumers through prices, and the other half is shifted backward to property owners in general. Property income is a component of personal income, accounting for roughly one-seventh of the aggregate. Estate and gift taxes are assumed to be distributed according to the previous six years' total of estate and gift taxes are reported in the *Annual Report of the Commissioner of Internal Revenue*. Excise taxes on alcoholic beverages are assumed to follow the geographic pattern of consumption of distilled spirits, malt beverages, and wines. The state-by-state distribution of tobacco taxes is patterned after population. Similar procedures are used to estimate other federal revenues, in each case employing the most appropriate allocator.

State and local revenue data are collected by the Bureau of the Census in its quinquennial Census of Governments, the latest of which covers 1977. For interim years, the Bureau of the Census develops statistics based on a sample of local governments in each state, along with reports from the District of Columbia and each of the fifty states. No agency, public or private, assesses the geographic burden of state and local revenues in a manner parallel to the Tax Foundation's assessment of the federal tax burden. This means that the Michigan Single Business Tax, for example, is assumed to be borne entirely by residents of this state (Table X-2 and so forth), although it is certainly exported, to some extent, with every car and truck that rolls from an assembly line destined for another state or country. Similarly, part of the well head taxes levied in Texas, Louisiana, Oklahoma, and Wyoming are paid, in the final analysis, by Michiganians and other Americans.

For a number of reasons, the data published by the Bureau of the Census vary from those published in the Michigan State Tax Commission's *State of Michigan Financial Report*, and by other in-state sources. The major reason for frequent disagreement is the inclusion of publicly owned community colleges, colleges, and universities in the Bureau of the Census definition of government. In Tables X-7 and X-8, current charges for education include student tuition and fees paid to the state and locally operated colleges and universities; Tables X-14 and X-15 include expenditures of these institutions (pay to faculty, and so forth). In Tables X-5 and X-9, student fees, tuition, and other revenues derived independently by higher education are not included as part of state revenues; Table X-16 reports only expenditures for higher education that the state spends, not the total amount expended by the institutions themselves. Interested readers are encouraged to consult the chapter on education.

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X. GOVERNMENTAL FINANCE AND EMPLOYMENT

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TABLE X-1. AVERAGE EMPLOYMENT IN GOVERNMENT IN MICHIGAN AND THE UNITED STATES: 1957-1982.

(In thousands)

	Michigan			United States		
Year	Federal	State	Local	Federal	State	Local
1957	43.0	64.2	208.4	2,217	1,328.2	4,070.5
1958	43.6	66.5	210.3	2,191	1,415.2	4,232.2
1959	44.0	68.5	212.2	2,233	1,484.3	4,365.8
1960	46.3	71.1	215.3	2,270	1,535.7	4,547.2
1961	47.4	73.4	217.1	2,279	1,607.0	4,707.9
1962	47.0	72.4	223.2	2,340	1,668.4	4,881.2
1963	49.2	73.8	236.4	2,358	1,746.7	5,120.8
1964	48.5	76.9	247.5	2,348	1,856.0	5,391.2
1965	50.6	83.2	261.0	2,378	1,995.9	5,700.2
1966	53.7	94.0	284.6	2,564	2,140.8	6,079.5
1967	56.5	97.8	300.1	2,719	2,301.7	6,370.5
1968	57.9	102.4	310.4	2,737	2,441.8	6,659.8
1969	56.2	109.6	327.9	2,758	2,533.0	6,903.3
1970	57.7	116.0	333.0	2,731	2,664.4	7,158.3
1971	54.9	117.8	336.8	2,696	2,747.4	7,437.3
1972	55.3	122.5	349.1	2,684	2,859.3	7,790.0
1973	55.0	123.9	355.5	2,663	2,922.6	8,145.8
1974	56.3	127.5	378.8	2,724	3,038.5	8,407.0
1975	56.1	132.6	394.4	2,748	3,179.3	8,757.9
1976	55.5	135.1	404.0	2,733	3,272.9	8,864.6
1977	54.7	136.9	405.2	2,727	3,376.9	9,022.5
1978	54.6	143.6	413.2	2,753	3,473.5	9,445.5
1979	56.7	147.7	416.6	2,773	3,540.8	9,633.3
1980	58.2	152.3	417.3	2,866	3,609.9	9,765.0
1981	55.9	147.8	394.7	2,772	3,623.3	9,629.1
1982	57.4	144.1	377.8	2,733[a]	--	13,051.0[a,b]

SOURCE: Michigan Employment Security Commission Special release, and Bureau of Labor Statistics, Employment and Earnings, (Washington, D.C.; Monthly), January, 1983. Tables B-1.

a: preliminary
b: includes state and local

TABLE X-2. STATE AND LOCAL TAX COLLECTIONS AND FEDERAL TAX BURDEN IN MICHIGAN AND THE UNITED STATES, FISCAL YEARS: 1962-1981

(Millions of dollars)

	Federal		States		Local		Total	
Fiscal year	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States
1962	4,217	94,329	1,007.5	20,561.1	888.7	20,993.0	6,113.2	135,883.1
1963	n.a.	n.a.	1,142.7	22,166.7	959.4	22,164.3	n.a.	n.a.
1964	4,617	106,317	1,220.2	24,242.7	1,001.8	23,542.1	6,839.0	154,101.8
1965	n.a.	n.a.	1,328.6	26,126.1	1,052.5	25,451.4	n.a.	n.a.
1966	5,590	123,402	1,467.7	29,379.8	1,127.6	27,360.8	8,185.3	180,142.6
1967	n.a.	n.a.	1,530.8	31,926.0	1,184.4	29,074.0	n.a.	n.a.
1968	6,982	143,950	1,885.6	36,400.2	1,319.3	31,171.4	10,186.9	211,521.6
1969	n.a.	n.a.	2,248.8	41,930.7	1,505.4	34,781.2	n.a.	n.a.
1970	8,936	186,947	2,345.1	47,962.0	1,697.9	38,833.3	12,979.0	273,742.3
1971	n.a.	n.a.	2,543.9	51,541.2	1,876.7	43,434.0	n.a.	n.a.
1972	8,949	193,697	3,062.4	59,870.0	2,184.7	49,739.0	14,196.1	303,306.0
1973	n.a.	n.a.	3,527.6	68,069.3	2,216.9	53,032.4	n.a.	n.a.
1974	11,492	243,467	3,681.2	74,207.0	2,497.8	56,515.0	17,671.0	374,189.0
1975	n.a.	n.a.	3,486.0	80,154.9	2,757.0	61,310.1	n.a.	n.a.
1976	12,919	278,420	3,769.5[a]	89,255.5	3,049.8	67,557.4	19,738.3	435,232.9
1977	n.a.	n.a.	4,843.7	101,084.0	3,137.9	84,851.6	n.a.	n.a.
1978	17,357	389,164	5,444.9	113,260.9	3,365.9	80,380.8	26,167.8	582,805.7
1979	20,737	450,816	6,017.7	124,962.9	3,645.8	80,606.1	30,400.5	656,385.0
1980	23,394	500,950	5,947.6	137,075.2	4,008.8	86,387.5	33,350.4	724,412.7
1981	n.a.	n.a.	6,177.0	149,737.9	4,505.1	94,776.2	n.a.	n.a.

SOURCE: Bureau of the Census, 1977 Census of Governments, Compendium of Government Finances (Washington, D.C.: 1979), vol. 4, no. 5, Tables 3 and 47, and similar documents for 1957 (Table 24), 1962 (Table 25), 1967 (Table 23), and 1972 (Table 23); Bureau of the Census, Governmental Finances, 1980-81 (Washington, D.C.: 1982), Table 6, and similar documents for other years between quinquennial Censuses of Governments; and Tax Foundation, Inc., Facts and Figures on Government Finance 1958-[illegible] through 1981 (New York: biennially), Table 101 (1980), and special release (1979 data).

a. Pertains to the fiscal year ended 30 June 1976. The 1977 fiscal year ended 30 September 1977. During the fiscal year ended 30 June 1976, state tax collections totaled $3,769,500,000. If the fiscal year had ended 30 September 1976, they would have totaled around $4,200,000,000.

n.a.: not available.

TABLE X-3. COMPARATIVE FEDERAL PERSONAL INCOME TAX STATISTICS, MICHIGAN AND THE UNITED STATES: 1957-1979

Year	Number of returns (000)		Thousands of dollars							
			Adjusted gross income		Salaries and wages		Taxable income		Income tax[a]	
	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States
1957	2,699	59,824	14,238	280,229	12,087	228,009	7,967	149,312	1,845	34,382
1958	2,576	59,080	12,922	281,252	10,947	227,618	6,991	149,401	1,607	34,351
1959	2,601	60,260	14,218	305,200	14,218	305,371	7,975	166,574	1,821	38,653
1960	2,624	61,025	14,822	315,832	12,623	258,170	8,300	171,932	1,908	39,545
1961	2,580	61,498	14,630	330,074	12,288	266,989	8,168	181,940	1,892	42,271
1962	2,612	62,709	15,949	348,707	13,526	283,367	9,159	195,307	2,107	44,893
1963	2,682	63,943	17,033	368,728	14,362	299,381	9,976	209,090	2,315	48,204
1964	2,778	65,375	18,922	396,717	15,856	323,292	11,409	229,881	2,361	47,160
1965	2,946	67,599	20,959	429,254	17,480	347,199	13,152	255,070	2,582	49,525
1966	3,051	70,153	23,003	468,347	19,329	380,934	14,779	286,230	2,934	56,071
1967	3,081	71,653	24,061	504,719	20,095	411,537	15,661	314,990	3,154	62,899
1968	3,169	73,731	26,372	554,337	22,092	451,430	17,322	352,672	3,776	76,611
1969	3,255	75,845	28,920	603,602	24,686	498,973	19,326	388,817	4,343	86,569
1970	3,155	74,278	29,267	631,626	25,256	531,869	19,067	401,057	4,005	83,759
1971	3,143	74,573	31,283	673,677	27,132	565,056	19,880	414,028	4,100	85,253
1972	3,270	77,570	35,084	746,006	30,403	622,656	21,912	445,558	4,599	93,354
1973	3,423	80,693	39,221	827,148	34,162	687,179	25,194	511,929	5,350	107,901
1974	3,461	83,340	41,248	905,523	36,163	758,629	26,638	573,606	5,723	123,465
1975	3,355	82,177	41,156	948,094	35,811	795,213	26,418	595,626	5,547	124,624
1976	3,461	84,536	46,834	1,053,593	40,682	879,770	30,829	674,428	6,521	140,919
1977	3,573	86,635	52,969	1,158,492	46,456	969,404	n.a.	n.a.	7,857	159,797
1978	3,698	89,772	59,980	1,302,447	52,501	1,090,292	n.a.	n.a.	9,187	188,233
1979	3,765	92,694	65,912	1,465,395	57,831	1,229,251	52,471	1,157,248	10,003	214,495

SOURCE: Internal Revenue Service, Statistics of Income, Individual Income Tax Returns (Washington, D.C.: annually), Table 5.I (1979).

NOTE: Items included on income tax returns filed by Michigan and U.S. residents.

a. After credits

n.a.: Not available.

TABLE X-4. DETAILED FEDERAL PERSONAL INCOME TAX STATISTICS, MICHIGAN AND THE UNITED STATES: 1978 AND 1979

Item	Michigan		United States		Michigan as a percentage of United States	
	1978	1979	1978	1979	1978	1979
Number of returns	3,698,083	3,764,658	89,771,551	92,694,302	4.1	4.1
Adjusted gross income less deficit	59,980,460	65,912,381	1,302,447,386	1,465,394,530	4.6	4.5
Salaries and wages (gross):						
Number of returns	3,364,760	3,440,839	80,278,349	83,200,646	4.2	4.1
Amount	52,501,387	57,831,361	1,090,291,855	1,229,251,389	4.8	4.7
Business or profession net profit less loss:						
Number of returns	267,324	280,578	8,194,375	8,562,834	3.3	3.3
Amount	1,923,240	1,970,875	53,546,508	56,564,466	3.6	3.5
Farm net profit less loss:						
Number of returns	68,129	79,747	2,704,794	2,605,684	2.5	3.1
Amount	14,989	-86,614	3,565,293	2,123,614	0.4	--
Partnership net profit less loss:						
Number of returns	89,449	99,593	2,869,930	2,934,026	3.1	3.4
Amount	490,779	538,980	15,044,787	12,449,418	3.3	4.3
Sales of capital assets net gain less loss:						
Number of returns	324,579	335,094	8,711,086	8,641,573	3.7	3.9
Amount	532,788	606,471	23,231,376	28,448,300	2.3	2.1
Sales of property other than Capital assets net gain less loss:						
Number of returns	35,405	33,906	1,078,139	1,194,325	3.3	2.8
Amount	32,130	21,925	1,256,902	961,096	2.6	2.3
Domestic & foreign dividends received:						
Total:						
Number of returns	574,847	613,313	13,587,058	13,930,947	4.2	4.4
Amount	1,324,396	1,386,961	31,671,858	35,028,895	4.2	4.0

TABLE X-4. DETAILED FEDERAL PERSONAL INCOME TAX STATISTICS, MICHIGAN AND THE UNITED STATES: 1978 AND 1979 (cont.)

(money amounts in thousands of dollars)

Item	Michigan		United States		Michigan as a percentage of United States	
	1978	1979	1978	1979	1978	1979
Interest received:						
Number of returns	2,018,037	2,068,085	46,107,411	47,885,069	4.4	4.3
Amount	2,210,381	2,740,658	61,222,522	73,875,462	3.6	3.7
Rent net income less loss:						
Number of returns	200,250	238,119	6,064,306	7,238,187	3.3	3.3
Amount	-12,987	38,833	3,139,157	1,832,334	--	2.1
Royalty net income less loss:						
Number of returns	20,069	13,898	644,109	686,677	3.1	2.0
Amount	54,099	32,161	2,559,870	3,008,776	2.1	1.1
Estate or trust net income less loss:						
Number of returns	24,721	26,193	793,263	866,362	3.1	3.0
Amount	58,082	115,900	3,079,603	3,780,423	1.9	3.1
Pensions and annuities in adjusted gross income:						
Number of returns	287,551	264,174	6,373,564	6,866,851	4.5	3.8
Amount	1,251,421	1,137,356	32,743,819	37,346,510	3.8	3.0
Total income tax:						
Number of returns	2,945,035	3,020,952	68,688,305	71,694,983	4.3	4.2
Amount	9,187,348	10,002,549	188,232,537	214,494,519	4.9	4.7
Total tax liability:						
Number of returns	2,987,012	3,054,744	70,441,155	73,156,846	4.2	4.2
Amount	9,336,551	10,180,858	193,184,849	220,100,162	4.8	4.6

SOURCE: Internal Revenue Service, Preliminary Statistics of Income, 1979, Individual Income Tax Returns, (Washington, D.C.: 1981); Table 5; and a similar document for 1978.

TABLE X-5. ORIGIN AND ALLOCATION, BY LEVEL OF GOVERNMENT, OF GENERAL REVENUE OF MICHIGAN STATE AND LOCAL GOVERNMENTS: FISCAL YEARS 1957-1981

(In millions of dollars)

Year	Originating level of government			Final recipient level of government		Total general revenue
	Federal	State	Local	State	Local	
1956-57	143.0	870.7	795.5	571.3	1,237.9	1,809.2
1957-58	174.1	907.1	911.1	612.5	1,379.8	1,992.3
1958-59	216.3	931.5	945.5	649.4	1,443.9	2,093.3
1959-60	222.7	1,049.0	994.3	736.2	1,529.8	2,266.0
1960-61	278.0	1,112.4	1,117.1	819.3	1,688.2	2,507.1
1961-62	289.5	1,156.6	1,141.1	910.9	1,676.2	2,587.1
1962-63	338.9	1,311.5	1,249.6	990.7	1,909.2	2,899.9
1963-64	404.3	1,408.6	1,312.3	1,144.0	1,981.2	3,125.2
1964-65	426.2	1,545.5	1,398.6	1,255.2	2,115.1	3,370.3
1965-66	471.9	1,724.0	1,528.6	1,347.0	2,377.6	3,724.6
1966-67	593.6	1,835.4	1,623.5	1,435.5	2,617.0	4,052.5
1967-68	637.6	2,226.6	1,800.3	1,868.2	2,796.2	4,664.5
1968-69	711.0	2,640.1	2,053.9	2,160.3	3,244.7	5,405.0
1969-70	818.2	2,769.7	2,330.6	2,264.5	3,654.0	5,918.5
1970-71	1,019.1	3,019.3	2,574.3	2,490.9	4,121.9	6,612.7
1971-72	1,306.9	3,572.1	3,038.9	3,121.8	4,796.2	7,918.0
1972-73	1,769.7	4,121.3	3,109.1	3,822.7	5,177.5	9,000.2
1973-74	1,845.2	4,417.1	3,538.5	3,889.5	5,911.3	9,800.8
1974-75	2,124.4	4,267.9	3,947.0	3,846.9	6,492.4	10,339.3
1975-76	2,667.3	4,607.0[a]	4,319.8	4,327.0	7,267.0	11,594.1
1976-77	2,841.1	5,763.5	4,580.3	5,192.1	7,992.8	13,184.9
1977-78	3,131.3	6,556.6	4,793.9	5,901.9	8,579.9	14,481.8
1978-79	3,399.8	7,302.0	5,408.3	6,612.8	9,497.2	16,110.0
1979-80	3,897.3	7,460.4	6,125.9	6,977.9	10,505.7	17,483.6
1980-81	4,093.8	7,908.2	6,857.1	7,934.9	10,924.2	18,859.1

SOURCES: Bureau of the Census, U.S. Census of Governments, 1972, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1974), Table 23, and similar census documents for 1957 (Table 24), 1962 (Table 25), and 1967 (Table 23); and Bureau of the Census, Governmental Finances, 1980-81 (Washington, D.C.: 1982), Series GF-81, no. 5, Table 7.

NOTE: Includes revenues of public institutions of higher education, exclusive of their state or local support.

[a] Pertains to the fiscal year ended 30 June 1976. The 1977 fiscal year ended 30 September 1977. During the fiscal year ended 30 June 1976, state tax collections totaled $3,769,500,000. If the fiscal year had ended 30 September 1976, they would have totaled around $4,200,000,000.

TABLE X-6. PERCENTAGE OF GENERAL REVENUE OF STATE AND LOCAL GOVERNMENTS ORIGINATING AT FEDERAL, STATE, AND LOCAL LEVEL, MICHIGAN AND UNITED STATES: FISCAL YEARS 1960-1981

	Originating level of government						Final recipient level of government			
	Michigan			United States			Michigan		United States	
Year	Federal	State	Local	Federal	State	Local	State	Local	State	Local
1959-60	9.8	46.3	43.9	13.8	40.8	45.4	32.5	67.5	35.8	64.2
1960-61	11.1	44.4	44.6	13.2	40.5	46.3	32.7	67.3	34.3	65.7
1961-62	11.2	44.7	44.1	13.5	40.6	45.8	35.2	64.8	34.8	65.2
1962-63	11.7	45.2	43.1	13.9	40.8	45.4	34.2	65.8	35.1	64.9
1963-64	12.9	45.1	42.0	14.6	41.2	44.2	36.6	63.4	36.2	63.8
1964-65	12.6	45.9	41.5	14.8	41.2	44.0	37.2	62.8	36.1	63.9
1965-66	12.7	46.3	41.0	15.8	41.6	42.6	36.2	63.8	36.6	63.4
1966-67	14.6	45.3	40.1	16.9	41.4	41.7	35.4	64.6	36.9	63.1
1967-68	13.6	47.7	38.5	16.9	42.6	40.3	40.0	59.9	38.3	61.6
1968-69	13.1	48.8	37.9	16.7	43.2	40.0	39.9	60.0	37.9	62.0
1969-70	13.8	46.7	39.3	16.7	43.9	39.3	38.2	61.7	38.8	61.1
1970-71	15.4	45.6	38.9	18.0	42.2	39.6	37.6	62.3	37.2	62.7
1971-72	16.5	45.1	38.4	18.7	42.2	39.1	39.4	60.6	37.9	62.1
1972-73	19.7	45.8	34.5	20.6	42.3	37.1	42.5	57.5	38.5	61.5
1973-74	18.8	45.1	36.1	20.1	42.9	36.9	39.7	60.3	37.4	62.6
1974-75	20.5	41.3	38.2	20.6	42.4	37.0	37.2	62.8	36.6	63.4
1975-76	23.0	39.7	37.3	21.7	41.9	36.4	37.3	62.7	38.1	61.9
1976-77	21.5	43.7	34.7	21.9	42.4	35.7	39.4	60.6	38.3	61.7
1977-78	21.6	45.3	33.1	22.0	42.9	35.0	39.4	60.6	40.8	59.2
1978-79	21.1	45.3	33.6	21.9	44.0	34.1	41.0	59.0	39.0	61.0
1979-80	22.3	42.7	35.0	21.7	44.3	34.0	39.9	60.1	39.8	60.2
1980-81	21.7	41.9	36.4	21.3	44.3	34.4	42.1	57.9	39.9	60.1

SOURCES: Bureau of the Census, U.S. Census of Governments, 1972, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1974), Table 23, and similar census documents for 1957 (Table 24), 1962 (Table 25), and 1967 (Table 23); and Bureau of the Census, Governmental Finances, 1980-81 (Washington, D.C.: 1982), Series GF-81, no. 5, Table 7.

NOTE: Includes revenues of public institutions of higher education, exclusive of their state or local support.

TABLE X-7. REVENUE OF LOCAL GOVERNMENTS IN MICHIGAN AS DEFINED BY THE BUREAU OF THE CENSUS, FISCAL YEARS: 1967, 1972, 1977, 1980, AND 1981

(In millions of dollars)

Item	1967	1972	1977	1980	1981
General revenue	2,648.9	4,853.8	7,886.6	10,593.4	11,157.5
Federal government	57.1	248.7	799.3	1,168.3	1,165.9
State government	968.3	1,566.2	2,655.9	3,299.2	3,134.5
Own sources	1,623.5	3,395.9	4,431.4	6,125.9	6,857.1
Taxes	1,184.4	2,184.7	3,137.9	4,008.8	4,505.1
Property	1,109.4	2,005.4	2,874.8	3,699.1	4,200.2
Individual income	60.6	135.1	187.6	212.7[b]	201.5[b]
Other	14.5	44.1	75.3	96.8	103.1
Charges & miscellaneous	439.1	854.2	1,293.5	2,117.1	2,352.0
Current charges	300.9	586.8	950.8	1,458.3	1,582.2
Education	91.9	135.1	203.5	259.7	282.1
School lunch[a]	41.7	63.4	70.7	n.a.	n.a.
Other	50.2	71.7	132.9	682.7	748.6
Hospitals	101.4	207.0	347.4	515.8	551.4
Sewerage	34.0	85.3	151.4	n.a.	n.a.
Airports	9.6	17.6	39.5	n.a.	n.a.
Other	64.1	141.8	209.0	n.a.	n.a.
Special assessments	30.9	63.9	38.7	n.a.	n.a.
Sale of property	15.0	10.3	5.5	n.a.	n.a.
Interest earnings	50.9	102.8	143.1	386.7	462.3
Other	41.3	90.3	155.4	272.1	307.5
Utility revenue	184.0	251.7	411.4	519.7	590.0
Water supply	105.4	152.8	239.0	n.a.	n.a.
Electric power	45.7	59.6	137.2	n.a.	n.a.
Transit	32.9	39.3	35.1	n.a.	n.a.
Insurance trust revenue, Employee retirement	54.5	105.2	163.0	267.3	315.9
TOTAL	2,887.3	5,210.8	8,461.0	11,380.4	12,063.4

SOURCE: Bureau of the Census, U.S. Census of Governments, 1977, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1979), Table 47, and similar census documents for 1962 (Table 46), 1967 (Table 46), and 1972 (Table 46); and Bureau of the Census, Governmental Finances, 1980-81 (Washington, D.C.: 1982), Series GF-81, No. 5, Table 5.

a. Gross sales.
b. Individual & Corporate Income.
n.a.: not available.

TABLE X-8. REVENUE OF THE STATE OF MICHIGAN AS DEFINED BY THE BUREAU OF THE CENSUS, FISCAL YEARS: 1967, 1972, 1977, 1980 AND 1981

(In millions of dollars)

Item	1967	1972	1977	1980	1981
General Revenue	2,403.8	4,688.0	7,891.6	10,277.2	11,069.4
Federal government[a]	536.5	1,058.2	2,042.2	2,729.1	2,927.9
Local government	31.9	57.6	85.8	87.7	233.4
Own sources	1,835.4	3,572.1	5,763.5	7,460.4	7,908.2
Taxes	1,530.8	3,062.4	4,843.7	5,947.7	6,177.0
Property	81.0	93.3	117.7	133.4	142.8
General sales and use	680.4	987.7	1,407.0	1,706.7	1,792.7
Selective sales	379.2	582.0	757.9	850.0	808.4
Motor fuel	190.8	300.8	430.4	473.6	438.0
Alcoholic beverages	58.4	72.0	80.0	90.3	92.8
Tobacco products	77.9	128.7	140.3	140.4	140.6
Other	52.0	81.0	107.2	145.8	136.9
Motor vehicle licenses	101.9	160.6	180.3	248.6	224.6
Individual income	0	0	728.9	1,465.5	2,028.4
Other	288.4	509.4	915.3	1,002.5	1,046.3
Charges & miscellaneous	304.6	509.8	919.8	1,512.7	1,731.2
Current charges	225.3	399.7	592.8	858.4	973.6
Education[b]	172.6	296.6	422.3	577.1	638.4
Hospitals	28.5	64.8	109.6	198.8	242.9
Other	24.2	38.3	60.9	82.6	92.3
Sale of property	1.4	2.3	1.2	1.6	1.2
Interest earnings	25.8	50.1	95.5	245.2	278.3
Other	52.2	57.7	230.3	407.5	478.0
Liquor Store Revenue	232.3	306.5	338.3	405.8	417.6
Insurance Trust Revenue	288.1	477.4	1,459.4	1,673.6	3,547.7
Unemployment compensation	181.9	247.8	967.1	1,023.0	2,711.1
Employee retirement	93.1	213.2	439.1	593.2	783.3
Other	13.1	16.4	53.2	57.4	53.3
TOTAL	2,924.2	5,471.9	9,689.2	12,356.6	15,034.8

SOURCE: Bureau of the Census, U.S. Census of Governments, 1977, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1974), Table 46, and similar census documents for 1962 (Table 46), and 1967 (Table 46), and 1972 (Table 46); and Bureau of the Census, State Government Finances, 1981 (Washington, D.C.: 1982), Series GF-81, no. 3, Table 7.

a. Includes federal payments to state institutions of higher education.

b. Revenues of state institutions of higher education, exclusive of payments from state and federal government.

TABLE X-9. REVENUE OF STATE OF MICHIGAN, AS DEFINED BY THE STATE OF MICHIGAN (EXCLUSIVE OF REVENUES OF STATE INSTITUTIONS OF HIGHER EDUCATION), FISCAL YEARS: 1980 AND 1981

(In thousands of dollars)

Source	1980	1981
Taxes		
Sales tax	1,503,972	1,594,970
Personal income tax	1,912,044	2,036,016
Corporation income tax	6,975	5,751
Use tax	232,319	245,689
Cigarette tax	141,205	152,827
Beer and wine tax	50,729	51,436
Single business tax	1,076,010	942,249
Liquor excise tax	37,169	38,990
Horse race wagering tax	26,847	24,356
Intangibles tax	41,771	44,694
Inheritance tax	50,395	55,347
Telephone and telegraph company tax	93,828	98,773
Insurance company premium tax	148,569	110,972
Motor vehicle weight tax	236,249	211,009
Gasoline tax	448,218	417,497
Aviation fuel tax	3,431	3,543
Diesel fuel tax	25,556	20,071
Gas and oil severance tax	46,929	82,678
Industrial facilities tax	16,042	21,254
Watercraft registration tax	--	5,959
Delinquent railroad company tax (General Transportation Fund)	--	--
Penalties and interest-sales, income use, and single business tax	22,337	27,179
All other taxes	5,792	3,748
TOTAL	6,126,400	6,195,020
From federal agencies for:		
Social service programs	1,376,146	1,566,315
School lunch programs	91,362	101,786
Vocational education and rehabilitation	74,962	81,467
Elementary and secondary education	152,365	146,063
Various other educational purposes	40,788	55,568
Various public health programs	70,917	75,069
Mental health programs	14,538	10,731
State share of revenue sharing	98,122	--
Various conservation programs	25,737	35,979
Airways purposes	18,218	11,416
Highway purposes	163,518	159,346
Employ. security commission-administration	132,417	149,606

TABLE X-9. REVENUE OF STATE OF MICHIGAN, AS DEFINED BY THE STATE OF MICHIGAN (EXCLUSIVE OF REVENUES OF STATE INSTITUTIONS OF HIGHER EDUCATION), FISCAL YEARS: 1980 AND 1981 (cont.)

(In thousands of dollars)

Source	1980	1981
From federal agencies for:		
Omnibus crime control	18,397	10,247
Comprehensive employment and training	76,479	85,554
Older American Act	25,942	23,479
State police and military programs	--	21,856
Weatherization assistance programs	--	21,942
All other purposes	29,297	46,029
TOTAL	2,452,370	2,602,459
From local agencies for:		
Social services department programs	18,461	37,220
Mental health services	20,546	162,411
Highway construction	6,349	4,697
All other purposes	6,779	8,658
TOTAL	52,137	212,988
From services:		
Charges for furnishing vehicle driver records	11,945	15,642
Revenue from patients, wards, & inmates	32,626	33,734
All other services	5,467	6,450
TOTAL	50,038	55,827
From licenses and permits:		
Liquor retailer, manufacturer, and wholesaler licenses	13,187	11,551
Motor vehicle operator and chauffeur licenses	12,698	13,029
Corporation franchise fees	2,597	--
Examination fees, banks, building and loan companies, trust companies, credit unions, and insurance companies	3,569	3,498
Department of Licensing and Regulation licenses and permits	9,511	11,618
Concession and privilege fees-state parks	5,924	6,101
Motor vehicle title fees, license plate transfer and dealer's plates, various special fees and registrations	18,245	20,231
Hunting, fishing, and trapping licenses	25,153	24,786
Public utility assessment fees	7,836	9,124
Department of Agriculture licenses and permits	--	2,329
Auto repair facilities and mechnics licenses and fees	--	2,225
Other licenses and permits	16,121	23,088
TOTAL	119,396	127,584

TABLE X-9. REVENUE OF STATE OF MICHIGAN, AS DEFINED BY THE STATE OF MICHIGAN (EXCLUSIVE OF REVENUES OF STATE INSTITUTIONS OF HIGHER EDUCATION), FISCAL YEARS: 1980 AND 1981 (cont.)

(In thousands of dollars)

Source	1980	1981
Miscellaneous:		
Income from investments	135,579	73,871
Various fines, fees, and assessments	10,878	13,229
District court fees	6,290	5,806
Oil and gas royalties, fees, assignments, and rentals	35,690	80,489
Lottery ticket sales	483,636	502,389
Air and water surveillance fees	4,329	5,247
Mackinaw Bridge and International Bridge Authority - payroll contributions	--	2,399
Rental of property	--	2,954
Sale of forest products on tax reverted land	--	2,789
Other miscellaneous	31,294	32,501
TOTAL	717,786	735,179
Other financing sources:		
Proceeds from sale of bonds	106,329	64,010
Operating transfers in:		
From general and special revenue funds	2,221,267	1,604,501
From other funds	107,335	108,680
TOTAL	2,434,932	1,777,192
TOTAL REVENUE	11,953,063	11,706,253

SOURCE: Michigan Department of Management and Budget, State of Michigan Financial Report, 1980 and 1981 (Lansing: annually), pp. 98-99 (1981).

a. Includes airport construction.
n.a.: not available

TABLE X-10. INTERGOVERNMENTAL REVENUE IN MICHIGAN AS DEFINED BY THE BUREAU OF THE CENSUS, BY TYPE OF PROGRAM, FISCAL YEARS: 1967, 1972, 1977, 1980, AND 1981

(In millions of dollars)

Item	1967	1972	1977	1980	1981
General revenue from federal government to state of Michigan[a]					
Public welfare	141.9	485.4	996.6	1,308.8	1,538.7
Education	180.2	229.9	388.0	517.0	560.9
Highways	158.7	206.0	206.0	241.2	243.0
General revenue sharing	0	0	91.3	98.1	49.0
Employment security admin.	25.5	57.5	96.1	148.0	170.5
Health and hospitals	14.6	27.5	54.4	163.8	94.8
Natural resources	6.2	11.4	17.4	33.9	45.1
Other	9.3	40.5	192.4	218.3	215.8
TOTAL	536.5	1,058.2	2,042.2	2,729.1	2,927.9
Total revenue from state of Michigan to local governments					
Education	620.0	941.0	1,588.9	1,770.5	1,620.9
Highways	162.0	232.0	347.8	430.3	431.1
General support	88.0	186.0	463.1	570.2	546.3
Public welfare	66.0	80.0	221.8	136.1	105.8
Other	32.0	127.0	226.7	392.1	430.4
TOTAL	968.0	1,566.0	2,848.3	3,299.2	3,134.5
General revenue from federal government to local governments					
General revenue sharing	0	0	181.0	191.9	193.7
Other	57.1	248.7	618.3	976.4	972.2
TOTAL	57.1	248.7	799.3	1,168.3	1,165.9
General revenue from local governments to state of Michigan					
Highways	15.8	26.4	16.8	24.2	21.9
Public welfare	0	10.6	0	1.7	29.9
Health and hospitals	11.2	11.9	18.4	34.8	169.2
Other	4.9	8.6	50.6	27.0	12.4
TOTAL	31.9	57.6	85.8	87.7	233.4

SOURCE: Bureau of the Census, State Government Finances, 1962, 1967, 1972, 1977, and 1980 (Washington, D.C.: annually), GF-80, no. 3 (1981), Tables 7 and 11; Bureau of the Census, U.S. Census of Governments, 1977, vol. 4, Government Finances, no. 5, Compendium of Government Finances (Washington, D.C.: 1979), and similar census documents for 1972 (vol. 4, no. 5, Table 46), 1967 (vol. 4, no. 5, Table 29), and 1962 (vol. 4, no. 4, Table 46); and Bureau of the Census, Governmental Finances, 1980-81 (Washington, D.C.: 1982), GF-81, no. 5, Table 5.

a. Includes payments to institutions of higher education.

TABLE X-11. REVENUE OF LOCAL GOVERNMENTS IN MICHIGAN, BY LEVEL OF GOVERNMENT: 1980-1981

(In millions of dollars)

Item	All local governments	Counties	Municipalities	Townships	Special districts	School districts
Total revenue	12,063.4	2,380.4	4,089.5	460.3	396.4	5,125.6
General revenue total	11,157.5	2,302.6	3,325.4	418.2	375.0	5,125.2
Intergovernmental revenue	4,300.4	1,205.5	1,413.4	143.2	124.1	1,803.0
From federal government	1,165.9	294.6	690.4	32.4	67.5	81.0
From state government	3,134.5	727.5	643.3	104.7	47.1	1,611.9
General revenue from own sources	6,857.1	1,097.1	1,911.9	275.0	250.9	3,322.2
Tax revenue	4,505.1	474.1	1,047.7	145.0	14.4	2,823.9
Property tax	4,200.2	454.5	779.0	138.0	14.4	2,814.3
Other taxes	305.0	19.6	268.7	7.0	--	9.6
Charges and miscellaneous general Revenue	2,352.0	623.0	864.2	130.0	236.5	498.3
Utility system and liquor store revenue	590.0	3.9	526.0	38.8	21.4	--
Employee retirement revenue	315.9	74.0	238.1	3.3	--	.5

SOURCE: Bureau of the Census, Governmental Finances in 1980-81 (Washington, D.C.: 1982), GF81, No. 5, Table 24.

TABLE X-12. FEDERAL, STATE, AND LOCAL GOVERNMENT DIRECT GENERAL EXPENDITURES IN MICHIGAN AND THE UNITED STATES, FISCAL YEARS: 1960-1981

	Federal		State		Local		Total	
Fiscal year	Michigan	United States	Michigan	United States	Michigan	United States	Michigan	United States
1960	n.a.	n.a.	790	17,946	1,582	33,931	n.a.	n.a.
1961	n.a.	n.a.	903	19,004	1,721	37,197	n.a.	n.a.
1962	n.a.	n.a.	955	20,375	1,823	39,831	n.a.	n.a.
1963	n.a.	n.a.	972	22,491	1,974	42,324	n.a.	n.a.
1964	n.a.	n.a.	1,018	24,274	2,113	45,027	n.a.	n.a.
1965	n.a.	n.a.	1,054	26,141	2,229	48,813	n.a.	n.a.
1966	n.a.	n.a.	1,242	29,162	2,503	53,680	n.a.	n.a.
1967	n.a.	n.a.	1,553	34,249	2,771	59,101	n.a.	n.a.
1968	n.a.	n.a.	1,742	38,446	2,960	63,966	n.a.	n.a.
1969	n.a.	n.a.	1,929	43,244	3,459	73,483	n.a.	n.a.
1970	4,053	168,152	2,146	48,749	3,864	82,582	10,063	299,483
1971	4,531	182,702	2,481	56,478	4,329	94,196	11,341	333,376
1972	4,813	195,672	2,913	62,051	4,951	106,499	12,677	364,222
1973	5,452	221,354	3,280	67,264	5,302	113,822	14,034	402,440
1974	6,249	239,636	3,630	73,950	5,746	124,668	15,625	438,254
1975	7,538	279,672	4,269	86,326	6,636	143,148	18,443	509,146
1976	7,787	303,281	4,513	95,832	7,391	159,720	19,691	558,833
1977	9,466	333,212	4,801	101,891	7,723	170,938	21,990	606,041
1978	9,745	363,269	5,291	112,515	8,400	182,995	23,436	658,779
1979	10,928	394,582	5,938	124,559	9,446	201,470	26,312	720,611
1980	12,211	445,659	6,934	143,718	10,467	223,621	29,612	812,998
1981	n.a.	n.a.	7,178	160,474	10,998	245,102	n.a.	n.a.

SOURCE: Bureau of the Census, *1977 Census of Governments, Compendium of Government Finances* (Washington, D.C.: 1979), vol. 4, no. 5, Table 3 and 47, and similar documents for 1957 (Table 24), 1962 (Table 25), 1967 (Table 23), and 1972 (Table 23); Bureau of the Census, *Governmental Finances, 1980-81* (Washington, D.C.: 1982), Table 13, and similar documents for other years between quinquennial Censuses of Governments; and Executive Office of the President, *Geographic Distribution of Federal Funds in Michigan, Fiscal Year 1980* (Washington, D.C.: 1981), National and State Summaries section, p. 2, and similar documents for previous years.

n.a.: not available.

TABLE X-13. NET VALUE OF MILITARY PRIME CONTRACT AWARDS OVER $10,000 IN MICHIGAN, BY PROCUREMENT PROGRAM, FISCAL YEARS: 1979-1981

Procurement program	1979		1980		1981	
	Value ($000)	Percentage of U.S.	Value ($000)	Percentage of U.S.	Value ($000)	Percentage of U.S.
Airframes & related assemblies & spares	14,456	.2	14,033	.2	29,727	.3
Aircraft engines & related spares	49,805	1.5	50,665	1.3	77,511	1.5
Other aircraft equipment & supplies	52,103	2.3	54,929	1.8	78,123	2.1
Missile & space systems	56,661	.7	17,160	.2	85,521	.7
Ships	9,500	.1	15,657	.3	14,733	.2
Combat vehicles	942,987	58.2	1,077,353	48.3	943,791	27.6
Noncombat vehicles	79,526	11.5	60,390	11.1	91,057	10.1
Weapons	52,572	5.1	64,061	4.8	47,753	2.8
Ammunition	3,834	.2	6,142	.3	4,529	.2
Electronics & communication equipment	43,943	.5	81,656	.8	68,554	.5
Petroleum	32,384	1.2	45,646	1.1	43,115	.5
Other fuels & lubricants	--	--	--	--	18	--*
Textiles, clothing, & equipage	1,680	.3	9,753	1.2	5,920	.7
Military building supplies	176	.3	48	.1	149	.2
Subsistence	22,383	1.7	33,421	2.5	25,926	1.6
Transportation equipment	67	6.3	14	.2	12	.1
Production equipment	3,660	2.2	1,994	1.0	7,072	3.7
Construction	20,793	.7	38,892	.9	69,275	1.4
Construction equipment	8,493	13.2	8,804	7.8	8,605	10.6
Medical & dental supplies & equipment	6,718	2.7	10,672	3.9	12,992	3.7
Photographic equipment & supplies	171	.2	139	.2	286	.2
Materials handling equipment	13,477	11.6	8,711	9.1	10,573	10.4
All other supplies & equipment	35,083	1.7	47,020	1.8	63,558	1.9
Services	43,120	.9	54,589	.8	88,496	1.3
TOTAL	1,493,592	2.6	1,701,749	2.5	1,777,296	2.0

SOURCE: Department of Defense, *Military Prime Contract Awards by Region and State, Fiscal Years 1979, 1980, and 1981*, (Washington, D.C.: 1982), Table III.
*: Less than .05 percent.

TABLE X-14. EXPENDITURES OF MICHIGAN LOCAL GOVERNMENTS AS DEFINED BY THE BUREAU OF THE CENSUS, FISCAL YEARS: 1967, 1972, 1977, 1980, AND 1981

(In millions of dollars)

Item	1967	1972	1977	1980	1981
General expenditure	2,856.6	5,046.2	7,744.1	10,467.4	10,997.8
Intergovernmental, net	85.8	95.0	20.7	19.8	20.9
Direct expenditure	2,770.8	4,951.3	7,723.4	11,430.0	12,096.8
Education	1,452.6	2,396.6	3,622.6	4,708.6	5,074.0
Higher	73.8	100.1	238.6	304.2	389.5
Capital outlay	37.2	13.7	n.a.	148.1	201.9
Other	36.6	86.4	n.a.	156.1	187.6
Local schools	1,378.7	2,296.5	3,384.0	4,404.4	4,684.5
Capital outlay	224.6	226.7	n.a.	1,433.3	1,512.4
Other	1,154.1	2,069.8	n.a.	2,971.1	3,172.1
Highways	230.0	351.3	507.5	707.2	708.1
Capital outlay	95.9	159.8	193.8	255.1	228.9
Other	134.1	191.5	313.7	452.1	479.2
Public welfare	92.1	141.6	229.3	205.3	177.3
Hospitals	153.9	256.2	415.8	835.5[a]	855.4
Capital outlay	8.2	12.9	n.a.	423.2[a]	431.8
Other	145.6	243.3	n.a.	412.3[a]	423.6
Health	21.3	67.5	177.7	--	--
Police protection	116.5	245.0	425.6	588.0	616.6
Fire protection	67.0	107.9	184.1	239.9	267.6
Sewerage	73.6	316.8	291.5	644.6	567.2
Capital outlay	43.7	245.2	161.6	n.a.	n.a.
Other	29.8	71.5	129.9	n.a.	n.a.
Other sanitation	41.6	67.8	92.7	132.0	146.0
Parks and recreation	57.0	87.1	153.3	343.3[c]	289.4
Urban renewal[b]	39.9	81.1	89.0	148.5	247.9
Airports	31.4	26.5	48.7	54.6	45.5
Correction	13.9	32.3	67.8	95.8	121.2
Libraries	22.2	28.7	41.9	57.7	62.1
Financial administration	30.9	60.2	97.6	186.1	193.5
General control	67.0	139.6	232.6	315.1	355.8
General public buildings	28.9	39.1	69.6	106.0	108.6
Interest on general debt	92.4	201.6	298.5	377.5	394.2
Other	105.4	304.3	677.7	649.5	700.5
Utility expenditure	215.1	334.1	513.0	759.4	840.2
Water supply	141.0	210.7	263.9	n.a.	n.a.
Electric power	43.1	71.3	126.8	n.a.	n.a.
Transit	31.0	52.1	122.3	n.a.	n.a.
Insurance trust expenditure, Employee retirement	61.3	97.9	153.4	203.2	258.7
TOTAL	3,133.0	5,478.3	8,410.5	11,499.8	12,117.7

SOURCE: Bureau of the Census, *U.S. Census of Governments, 1977*, vol. 4, *Government Finances*, no. 5, *Compendium of Government Finances* (Washington, D.C.: 1969), Table 47, and similar census documents for 1962 (Table 46), 1967 (Table 46), and 1972 (Table 46); and Bureau of the Census, *Government Finances, 1980-81* (Washington, D.C.: 1982), Series GF-81, no. 5, Table 12.

a. Includes health.
b. Includes housing.
c. Includes natural resources
n.a.: not available.

TABLE X-15. EXPENDITURES OF THE STATE OF MICHIGAN AS DEFINED BY THE BUREAU OF THE CENSUS, FISCAL YEARS: 1967, 1972, 1977, 1980, AND 1981

(In millions of dollars)

Item	1967	1972	1977	1980	1981
General Expenditure	2,531.3	4,532.0	7,649.3	10,512.8	10,993.0
Intergovernmental expenditure	978.6	1,619.1	2,848.3	3,578.3	3,814.8
Direct expenditure	1,552.7	2,912.9	4,800.9	6,934.4	7,178.2
General expenditure by function:					
Educational services:					
Education	612.4	867.4	1,296.6	1,734.2	3,833.5[a]
Higher education	541.2	714.5	1,038.2	1,426.6	1,510.9
Other education	71.2	152.9	258.4	307.7	341.3
Libraries	n.a.	n.a.	n.a.	n.a.	17.4
Social Services:					
Public welfare	234.7	948.4	1,767.8	2,500.2	3,031.6
Hospitals	142.1	218.6	339.4	523.9	518.6
Health	26.0	44.0	126.1	369.2	542.5
Emp. security admin.	22.9	55.2	99.1	134.0	148.4
Other	n.a.	n.a.	n.a.	n.a.	2.4
Transportation:					
Highways	285.6	344.5	392.0	556.2	888.4
Airports	2.7	6.9	13.5	22.8	15.2
Water transp. & terminals	n.a.	n.a.	n.a.	n.a.	12.5
Public safety:					
Correction	31.3	50.7	119.2	188.1	212.4
Police protection	19.4	38.5	65.6	110.5	106.1
Protective inspection	n.a.	n.a.	n.a.	n.a.	68.7
Environment and housing					
Natural resources	47.0	83.9	91.8	130.0	135.1
Housing & urban renewal	0	1.9	4.2	8.2	10.0
Other	n.a.	n.a.	n.a.	n.a.	75.8
Governmental administration:					
Financial administr.	23.7	46.4	80.9	106.4	98.3
General control	16.8	40.1	73.5	109.8	115.4
General public buildings	n.a.	n.a.	n.a.	n.a.	21.8
Interest on general debt	32.3	57.0	105.1	192.1	239.7
Other general exp.	55.8	109.2	226.0	224.6	899.3
Insurance trust exp.:	172.8	370.6	1,141.3	1,778.8	1,959.5
Unemployment compensation	111.4	260.0	842.1	1,416.6	1,577.8
Employee retirement	51.1	96.2	269.9	286.4	310.5
Workmen's compensation	10.3	14.4	29.2	75.9	71.4
Liquor stores exp.	187.9	247.7	280.2	342.1	343.1
EXPENDITURE TOTAL	2,892.0	5,150.3	9,070.8	12,633.6	13,295.5

SOURCE: Bureau of the Census, *U.S. Census of Governments, 1977*, vol. 4, *Government Finances*, no. 5, *Compendium of Government Finances* (Washington, D.C.: 1969), Table 47, and similar census documents for 1962 (Table 46), 1972 (Table 46); and 1967 (Table 46); and Bureau of the Census, *State Government Finances, 1981* (Washington, D.C.: 1982), Series GF-80, no. 3, Table 9.

a: Includes interest on nongovernmental debt of state agencies, such as: toll highway revenue bonds, pollution control bonds, and industrial development bonds. Includes also interdepartmental expenditure of $1,981.3.
n.a.: not available.

TABLE X-16. EXPENDITURE OF THE STATE OF MICHIGAN, AS DEFINED BY THE STATE OF MICHIGAN (INCLUDING PAYMENTS FROM THE GENERAL FUND TO INSTITUTIONS OF HIGHER EDUCATION), FISCAL YEARS: 1979-1981

(In thousands of dollars)

Branch and department	1979 expenditures	1980 expenditures	1981 expenditures
General Fund			
Exeuctive	$ 1,966	$ 2,229	$ 2,083
Legislative	38,982	43,397	42,184
Judicial	32,431	33,919	36,919
Management and budget	102,418	112,643	99,960
Attorney General	15,154	16,897	17,441
Civil rights	8,280	9,172	8,744
Civil service	10,716	12,956	14,362
State	57,178	66,868	62,212
Treasury	41,155	44,971	76,650
Colleges and universities	732,990	783,656	712,199
Other education	1,307,180	1,377,531	1,122,975
Public health	151,347	180,367	177,826
Mental health	476,496	573,564	727,460
Social services	2,413,800	2,855,279	3,107,645
Corrections	152,356	176,289	200,461
Military affairs	11,601	12,493	11,950
State police	112,672	127,367	134,094
Commerce	79,738	85,581	80,460
Labor	117,103	137,905	146,918
Licensing and regulation	7,947	8,305	12,103
Natural resources	112,672	117,043	118,791
Agriculture	35,199	31,995	23,723
Expenditures not assigned	834,463	752,882	687,397
TOTAL	6,853,855	7,563,326	7,624,557
Special Revenue Funds			
State aeronautic fund	18,662	24,173	16,649
State trunkline fund	443,055	516,865	452,895
State transportation dept. fund	329,925	316,788	293,754
Mich. transportation fund	756,885	735,875	687,516
Comprehensive transportation fund	79,437	108,898	118,258
Comprehensive transportation bond constr. fund	--	75,794	31,944
Combined transportation total	1,627,965	1,778,396	1,601,020
Game and fish protection fund	26,585	26,635	31,601
Michigan state waterways fund	7,219	10,721	7,871
Marine safety fund	2,[illegible]47	2,491	3,162
State park improvement fund	4,366	4,572	3,252
State recreational land acquisition trust fund	1,294	4,693	13,011
Water pollution control bond fund	--	29,442	11,632
State sewer construction fund	--	31	141
Combined conservation and recreation total	41,913	78,589	70,672

TABLE X-16. EXPENDITURE OF THE STATE OF MICHIGAN, AS DEFINED BY THE STATE OF MICHIGAN (INCLUDING PAYMENTS FROM THE GENERAL FUND TO INSTITUTIONS OF HIGHER EDUCATION), FISCAL YEARS: 1979-1981 (cont.)

(In thousands of dollars)

Branch and department	1979 expenditures	1980 expenditures	1981 expenditures
Special Revenue Funds (cont.)			
Counter-cyclical budget and economic stabilization fund	$ --	$ 263,663	$ 16,289
Michigan employment security act Administration fund	93,905	132,159	151,049
Michigan veterans' benefit (trust) fund	3,483	3,371	5,127
School aid fund	1,899,280	1,933,474	1,811,107
Motor vehicle accident claims fund	7,422	8,449	1,885
Safety education & training fund	760	1,146	1,519
Vietnam veteran era bonus fund	--	2,952	2,000
State lottery fund	416,871	489,585	506,733
School bond loan fund	--	5,849	5,260
State campaign fund	2,340	--	--
State construction code fund	--	--	1,951
Combined misc. total	2,424,061	2,840,652	2,502,922
TOTAL	10,947,794	12,260,963	11,799,171

SOURCE: Michigan Department of Management and Budget, State of Michigan Financial Report, 1979, 1980, and 1981 (Lansing: annually), pp. 101-102, 85-90.

TABLE X-17. STATE EQUALIZED VALUE BY STATE TAX COMMISSION, BY COUNTY: 1980, 1981, AND 1982

(In thousands of dollars)

County	Real property			Personal property		
	1980	1981	1982[c]	1980	1981	1982[c]
Alcona	175,501	188,730	181,605	6,009	6,160	6,297
Alger	71,252	83,371	62,560	9,322	9,565	9,849
Allegan	590,228	667,447	725,297	91,661	97,988	106,217
Alpena	269,290	294,983	301,104	42,324	44,466	45,802
Antrim[a]	256,521	290,133	304,261	11,710	12,283	12,954
Arenac	144,728	165,554	174,767	9,211	9,571	10,117
Baraga	52,981	57,272	46,773	6,693	6,460	6,566
Barry	315,880	354,345	368,272	22,738	24,074	25,623
Bay	1,137,435	1,231,710	1,265,235	113,045	109,656	106,148
Benzie	142,848	158,089	165,860	6,932	7,166	7,324
Berrien[a]	1,451,914	1,606,813	1,645,671	244,513	212,978	226,589
Branch	310,733	345,463	358,751	25,678	27,342	30,227
Calhoun	895,145	966,957	986,500	143,210	147,640	160,046
Cass	386,231	446,442	440,268	34,517	34,764	34,204
Charlevoix	227,850	310,901	334,277	23,885	24,428	27,696
Cheboygan	224,378	246,128	255,246	19,740	20,194	20,867
Chippewa	197,929	226,645	221,451	18,361	19,038	19,836
Clare	221,153	241,087	243,415	41,959	44,598	47,392
Clinton	440,827	497,659	511,931	29,839	34,281	36,637
Crawford	118,421	130,417	141,114	10,458	11,211	12,976
Delta	240,314	261,143	261,184	53,376	58,737	58,527
Dickinson	173,473	199,963	214,678	23,012	23,862	25,075
Eaton	686,711	767,163	844,167	57,089	58,678	73,498
Emmet	299,350	326,586	328,758	32,531	34,645	33,199
Genesee	3,226,791	3,551,152	3,752,944	549,153	573,049	563,504

TABLE X-17. STATE EQUALIZED VALUE BY STATE TAX COMMISSION, BY COUNTY: 1980, 1981, AND 1982 (cont.)

(In thousands of dollars)

County	Real property 1980	Real property 1981	Real property 1982[c]	Personal property 1980	Personal property 1981	Personal property 1982[c]
Gladwin	184,950	205,518	162,660	10,517	12,249	17,207
Gogebic	105,273	114,744	124,777	21,415	22,101	29,489
Grand Traverse	597,925	682,809	624,224	66,293	71,567	77,299
Gratiot	297,583	335,876	375,938	35,738	37,359	36,411
Hillsdale[a]	368,043	402,366	407,837	22,660	24,786	27,488
Houghton	165,212	187,506	200,142	29,848	28,871	28,114
Huron[a]	549,037	592,637	634,197	29,684	31,338	33,952
Ingham	1,742,297	1,958,482	2,140,253	285,612	293,863	320,487
Ionia	309,909	347,945	374,309	26,898	29,896	30,639
Iosco	257,203	272,543	274,847	19,984	20,453	20,197
Iron	108,512	126,232	132,893	19,853	18,775	20,261
Isabella	317,985	347,994	377,273	30,722	31,388	33,991
Jackson[a]	954,977	1,042,067	1,081,112	148,064	153,052	157,781
Kalamazoo	1,587,013	1,775,397	1,890,898	220,875	242,079	258,728
Kalkaska	132,935	148,066	157,693	47,792	65,605	84,822
Kent[a]	3,073,096	3,546,456	3,907,932	423,828	474,833	517,287
Keweenaw	23,373	24,290	21,869	3,848	3,916	3,318
Lake	121,867	137,761	133,798	4,963	5,235	5,830
Lapeer	562,210	630,628	670,768	42,184	44,559	51,263
Leelanau	281,758	327,198	341,238	8,533	9,662	10,319
Lenawee	785,749	860,261	936,673	82,786	88,697	100,875
Livingston[a]	970,362	1,090,569	1,174,512	85,164	95,819	102,474
Luce	45,058	48,838	39,019	1,754	1,956	2,070
Mackinac	134,981	143,559	137,837	26,147	28,571	32,418
Macomb	5,838,286	6,521,308	6,776,671	756,282	795,824	843,972

TABLE X-17. STATE EQUALIZED VALUE BY STATE TAX COMMISSION, BY COUNTY: 1980, 1981, AND 1982 (cont.)

(In thousands of dollars)

County	Real property 1980	1981	1982[c]	Personal property 1980	1981	1982[c]
Manistee	199,169	219,809	182,655	54,315	62,650	71,010
Marquette[a]	568,288	596,525	591,155	55,526	54,347	57,064
Mason	387,814	459,730	497,959	41,214	43,222	42,280
Mecosta	253,477	281,652	296,772	35,705	39,941	43,134
Menominee	174,133	192,583	203,660	14,811	14,952	16,665
Midland	720,266	798,218	836,895	439,398	469,994	521,678
Missaukee	107,441	122,090	124,259	15,728	17,742	19,413
Monroe	1,386,063	1,619,583	1,699,750	151,995	151,730	167,581
Montcalm[a]	324,360	365,443	388,966	47,785	50,416	54,709
Montmorency[a]	114,768	123,181	117,641	4,706	4,772	4,800
Muskegon[b]	929,776	1,060,806	1,110,316	111,323	132,251	138,012
Newaygo	286,012	322,113	314,323	26,156	28,358	30,072
Oakland	10,614,280	12,129,752	12,527,708	1,037,174	1,118,074	1,198,002
Oceana	185,400	215,478	217,282	11,057	11,643	11,917
Ogemaw	183,600	196,453	202,749	15,941	16,851	17,624
Ontonagon	81,042	86,725	90,950	9,955	11,553	11,404
Osceola[b]	173,743	186,315	192,250	38,809	38,139	38,458
Oscoda	89,774	99,248	86,684	6,291	6,560	6,279
Otsego	217,459	235,857	210,531	36,514	49,039	50,167
Ottawa	1,251,309	1,609,164	1,768,884	204,024	136,766	157,045
Presque Isle	158,774	170,712	170,289	18,074	19,688	20,171
Roscommon	253,821	272,403	287,422	15,411	16,988	18,240
Saginaw	1,691,020	1,893,423	1,964,421	268,910	285,186	283,637
St. Clair	1,345,731	1,675,221	1,652,377	211,294	216,588	198,530
St. Joseph	441.839	506,742	519,541	57,627	56,764	58,459

TABLE X-17. STATE EQUALIZED VALUE BY STATE TAX COMMISSION, BY COUNTY: 1980, 1981, AND 1982 (cont.)

(In thousands of dollars)

County	Real property			Personal property		
	1980	1981	1982[c]	1980	1981	1982[c]
Sanilac	436,348	467,916	496,010	20,877	25,120	26,224
Schoolcraft[a]	69,132	74,019	69,613	12,123	12,536	13,446
Shiawassee	474,830	534,998	565,395	37,835	40,412	41,439
Tuscola[a]	480,959	538,066	566,204	34,914	35,767	36,489
Van Buren	482,058	523,549	541,857	56,618	59,237	60,914
Washtenaw	2,402,798	2,758,711	2,840,494	327,612	347,772	370,033
Wayne	13,994,279	15,448,749	15,829,168	2,630,285	2,684,371	2,654,110
Wexford	196,990	219,823	205,707	20,563	22,121	23,396
TOTAL	72,500,231	81,492,349	84,605,350	10,145,818	10,566,786	11,018,264

SOURCE: Michigan State Tax Commission, special release.

a. Counties for which the county equalized valuation was not adopted by the State Tax Commission. (1980 and 1981)

b. Amended to recognize county equalization petition and stipuation filed with Michigan Tax Tribunal prior to May 26, 1981. (1980 and 1981)

c. Assessed valuation approved by the board of review.

TABLE X-18. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1981

City	State equalized valuation	County taxes	City taxes	School taxes	Total	
					Rate[a]	Taxes
Adrian	158,161,160	909,426	2,372,417	6,129,247	59.50	9,411,091
Albion	54,728,472	319,614	638,046	2,145,903	56.71	3,103,564
Algonac	33,217,406	204,951	529,882	1,100,891	55.26	1,835,725
Allegan	38,015,400	231,551	456,184	980,075	43.87	1,667,811
Allen Park	396,112,950	2,899,546	6,136,821	15,863,989	62.86	24,900,358
Alma	67,864,479	394,428	1,048,370	2,776,335	62.17	4,219,234
Alpena	143,039,009	994,121	2,719,200	4,638,755	58.39	8,352,076
Ann Arbor	1,182,849,950	7,335,059	19,456,509	46,533,317	61.99	73,324,886
Au Gres	9,145,204	55,720	155,483	239,729	49.31	450,933
Auburn	16,645,774	126,411	162,395	641,657	55.87	930,464
Bad Axe	31,097,046	133,717	333,360	709,945	37.85	1,177,023
Bangor	10,994,780	73,115	169,319	372,305	55.91	614,740
Battle Creek	262,587,604	1,533,511	4,032,295	11,572,593	65.27	17,138,400
Bay City	290,237,090	2,202,899	7,488,116	11,066,072	71.52	20,757,089
Beaverton	6,745,647	52,278	120,410	203,887	55.83	376,576
Belding	31,717,000	153,434	458,564	1,057,552	52.64	1,669,551
Belleville	25,999,211	190,314	400,390	1,010,329	61.58	1,601,033
Benton Harbor	48,164,913	262,575	1,815,817	1,696,873	78.38	3,775,267
Berkley	144,759,500	743,441	2,750,285	6,305,440	67.69	9,799,167
Bessemer	11,155,275	88,684	180,943	397,351	59.79	666,978
Big Rapids	54,090,900	351,937	412,010	1,762,173	46.70	2,526,120
Birmingham	400,476,000	2,056,724	6,156,148	13,520,990	54.27	21,733,864
Bloomfield Hills	176,622,050	907,077	1,873,578	5,730,844	48.19	8,511,501
Boyne City	27,556,150	114,358	497,388	983,754	57.90	1,595,501
Bridgman	23,511,656	128,176	434,965	288,652	36.23	851,794

TABLE X-18. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1981 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total	
					Rate[a]	Taxes
Brighton	60,849,929	338,413	988,811	2,469,277	62.39	3,796,502
Bronson	14,858,361	102,522	232,467	483,098	55.05	818,089
Brown City	7,869,841	40,476	133,708	233,734	51.83	407,919
Buchanan	41,644,782	227,030	578,908	1,432,788	53.76	2,238,727
Burton	266,757,546	1,861,972	2,085,842	10,253,204	53.24	14,201,019
Cadillac	79,180,500	593,853	1,460,880	2,957,404	63.30	5,012,138
Carson City	7,409,216	37,421	133,366	241,661	55.67	412,450
Caspian	4,582,329	35,019	105,383	150,870	63.57	291,283
Cedar Springs	12,400,900	59,407	148,810	404,889	49.44	613,107
Center Line	97,363,721	466,372	1,903,460	4,042,820	65.86	6,412,653
Charlevoix	48,519,100	201,354	606,488	1,460,424	46.75	2,268,267
Charlotte	61,214,600	336,680	1,059,012	1,979,680	55.14	3,375,373
Cheboygan	39,371,818	225,994	866,180	1,159,893	57.20	2,252,067
City of Manton	7,102,849	53,271	92,338	215,927	50.90	361,537
Clare	28,175,709	154,966	450,815	993,616	56.77	1,599,398
Clawson	138,516,566	711,379	1,763,419	5,942,956	60.77	8,417,754
Clio	16,287,759	113,689	244,317	546,569	55.54	904,575
Coldwater	72,156,695	497,881	1,035,457	2,528,370	56.29	4,061,709
Coleman	6,237,755	28,693	130,993	241,588	64.33	401,275
Coloma	13,249,288	72,229	210,776	478,895	57.51	761,901
Coopersville	19,164,884	81,067	297,055	711,758	56.87	1,089,882
Corunna	21,303,945	144,973	311,463	719,604	55.20	1,176,041
Croswell	15,742,873	80,965	325,074	443,476	53.96	849,516
Crystall Falls	10,009,646	76,497	144,839	279,137	50.00	500,474
Davison	41,586,872	290,276	488,645	1,575,726	56.62	2,354,648

TABLE X-18. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1981 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total	
					Rate[a]	Taxes
De Witt	25,235,519	138,550	331,593	1,105,176	62.42	1,575,321
Dearborn	1,780,478,207	13,033,100	28,861,572	51,644,579	52.54	93,539,253
Dearborn Heights	594,524,362	4,351,918	8,212,883	21,903,329	57.98	34,468,131
Detroit	5,319,287,515	38,937,184	175,995,902	201,600,996	78.31	416,534,083
Dowagiac	38,677,598	223,061	711,667	1,116,854	53.04	2,051,583
Durand	24,694,143	168,043	391,286	843,502	56.81	1,402,833
East Detroit	299,939,155	1,436,708	4,874,410	12,781,354	63.65	19,092,473
East Grand Rapids	130,030,250	622,922	2,145,499	5,398,452	62.81	8,166,874
East Jordan	16,561,750	68,731	285,690	638,455	59.95	992,876
East Lansing	252,406,240	2,026,317	4,492,831	11,982,335	73.30	18,501,483
East Tawas	23,018,515	119,696	333,768	577,764	44.80	1,031,229
Eaton Rapids	30,858,290	169,720	462,874	1,092,074	55.89	1,724,669
Ecorse	227,306,803	1,663,885	5,034,848	6,934,016	59.98	13,632,750
Escanaba	100,426,000	547,321	1,556,831	3,870,418	59.49	5,974,571
Essexville	40,703,782	308,937	567,828	856,349	42.58	1,733,115
Evart	17,064,523	93,854	231,395	497,430	48.21	822,681
Farmington	146,628,670	753,040	1,649,572	5,647,007	54.90	8,049,620
Farmington Hills	858,835,200	4,410,719	7,300,152	33,249,047	52.35	44,959,919
Fennville	7,727,208	47,066	115,908	242,154	52.43	405,129
Fenton	80,242,648	560,093	1,273,450	3,383,438	65.02	5,216,982
Ferndale	192,233,000	987,251	4,602,476	8,683,575	74.25	14,273,303
Ferrysburg	27,589,090	116,701	230,283	901,650	45.26	1,248,635
Flat Rock	152,176,678	1,113,933	2,130,475	5,309,964	56.21	8,554,373
Flint	1,460,825,040	10,196,558	12,585,817	63,795,742	59.27	86,578,119
Flushing	81,381,751	568,045	646,170	2,915,909	50.75	4,130,125

TABLE X-18. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1981 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total	
					Rate[a]	Taxes
Frankenmuth	57,164,500	392,148	520,199	1,740,659	46.41	2,653,006
Frankfort	14,132,400	81,826	275,581	337,764	49.19	695,172
Fraser	161,449,131	773,341	2,610,632	7,333,019	66.38	10,716,993
Fremont	44,150,921	247,770	529,811	1,490,733	51.38	2,268,314
Gaastra	1,426,126	10,899	32,800	46,954	63.57	90,654
Galesburg	9,949,077	59,694	94,516	399,714	55.68	553,924
Garden City	258,149,737	1,889,656	4,191,791	11,495,975	68.09	17,577,423
Gaylord	37,592,691	161,648	469,908	1,004,100	43.51	1,635,657
Gibralter	63,344,361	463,680	1,235,215	2,761,814	70.42	4,460,710
Gladstone	25,120,133	136,904	427,043	945,248	60.08	1,509,195
Gladwin	17,696,040	137,144	336,224	552,027	57.95	1,025,397
Gobles	4,147,378	27,580	82,947	120,273	55.65	230,801
Grand Blanc	80,344,693	560,805	764,078	3,009,712	53.95	4,334,596
Grand Haven	117,895,620	498,698	1,641,967	3,852,993	50.84	5,993,660
Grand Ledge	43,865,663	241,257	699,652	1,791,449	62.29	2,732,359
Grand Rapids	1,349,724,850	6,465,991	13,062,232	46,343,456	48.80	65,871,680
Grandville	123,456,200	591,429	1,111,105	4,279,769	48.46	5,982,304
Grant	3,964,228	22,246	53,516	133,827	52.87	209,591
Grayling	19,166,400	156,589	277,912	587,450	53.32	1,021,952
Greenville	64,566,789	326,107	1,033,088	1,985,816	51.81	3,345,012
Grosse Pointe	116,987,712	856,350	1,977,105	3,830,166	56.96	6,663,621
Grosse Pte. Farms	240,439,543	1,760,017	3,349,347	7,871,966	53.99	12,981,331
Grosse Pte. Park	117,318,569	1,297,971	3,209,486	5,805,392	58.16	10,312,850
Grosse Pte. Woods	302,129,815	2,211,590	4,102,955	9,890,729	53.64	16,205,275
Hamtramck	104,877,276	767,701	3,052,830	3,738,874	72.08	7,559,407

TABLE X-18. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1981 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total	
					Rate[a]	Taxes
Hancock	30,893,200	245,854	562,938	893,174	55.09	1,701,968
Harbor Beach	26,110,856	112,276	469,999	647,938	47.12	1,230,214
Harbor Springs	26,272,146	147,124	240,915	620,022	38.37	1,008,062
Harper Woods	183,444,990	1,342,817	4,311,500	5,207,265	59.21	10,861,583
Harrison	15,715,658	86,436	238,720	467,305	50.42	792,462
Harrisville	5,714,200	29,999	44,285	133,997	36.45	208,282
Hart	14,504,821	95,823	200,139	399,148	47.92	695,110
Hartford	10,556,881	70,203	229,084	426,181	68.72	725,468
Hastings	53,269,958	312,694	835,273	1,666,816	52.84	2,814,784
Hazel Park	129,548,471	665,322	3,311,672	5,480,198	73.00	9,457,192
Highland Park	144,761,908	1,059,657	4,933,489	6,553,371	86.67	12,546,518
Hillsdale	54,113,289	275,507	216,329	1,734,876	54.08	2,926,713
Holland	262,597,341	1,239,875	3,751,522	10,036,153	57.23	15,027,551
Houghton	26,070,350	207,473	410,266	835,127	55.73	1,452,866
Howell	64,316,244	357,690	1,078,152	2,504,461	61.26	3,940,305
Hudson	17,172,346	98,740	197,481	653,236	55.29	949,459
Hudsonville	36,477,725	154,300	255,344	1,095,396	41.26	1,505,041
Huntington Wds.	86,773,500	445,642	1,741,097	3,750,793	68.43	5,937,533
Imlay City	24,722,404	133,377	323,671	816,333	51.51	1,273,382
Inkster	162,013,055	1,185,935	3,856,336	6,981,051	74.21	12,023,323
Ionia	35,336,500	170,943	547,715	942,587	47.01	1,661,246
Iron Mountain	65,172,726	513,143	1,303,454	2,301,143	63.18	4,177,742
Iron River	15,799,681	120,747	339,377	520,195	62.05	980,320
Ironwood	34,848,152	277,043	878,173	1,206,443	67.77	2,361,659
Ishpeming	51,701,487	316,511	1,163,283	1,548,718	58.58	3,028,512

TABLE X-18. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1981 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total	
					Rate[a]	Taxes
Ithaca	18,340,612	106,595	265,025	596,593	52.79	968,214
Jackson	277,121,534	1,918,290	3,863,257	12,744,305	66.85	18,525,853
Kalamazoo	582,222,850	3,493,337	10,720,469	25,851,747	68.81	40,065,553
Keego Harbor	21,543,900	110,643	410,329	886,150	65.31	1,407,122
Kentwood	337,225,479	1,615,512	1,871,472	12,397,728	47.10	15,884,713
Kingsford	49,049,896	386,199	890,266	1,438,996	55.36	2,715,461
Laingsburg	5,171,551	35,192	118,949	177,167	64.06	331,308
Lake City	7,691,395	37,395	99,701	213,436	45.57	350,533
Lansing	1,043,422,050	8,331,167	12,741,767	43,390,254	61.78	64,463,189
Lapeer	55,804,100	301,063	558,041	1,911,848	49.66	2,770,952
Lathrup Village	67,815,500	348,280	913,479	2,530,352	55.92	3,792,111
Leslie	12,357,830	99,208	182,278	493,077	62.68	774,564
Lincoln Park	317,198,197	2,321,890	5,985,535	10,562,699	59.49	18,870,126
Litchfield	13,135,385	66,876	124,738	488,506	51.78	680,120
Livonia	1,522,390,291	11,143,896	17,542,086	62,953,738	60.19	91,639,722
Lowell	27,946,900	133,882	349,336	956,890	51.53	1,440,109
Ludington	77,391,775	392,453	1,547,842	1,772,607	47.98	3,712,903
Luna Pier	45,156,751	275,004	723,862	1,494,423	55.21	2,493,290
Mackinac Island	16,336,358	73,513	212,372	341,898	38.43	627,785
Madison Heights	382,683,400	1,965,347	5,407,647	15,769,411	60.47	23,142,406
Manistee	55,624,885	332,208	1,112,497	1,638,152	55.42	3,082,859
Manistique	22,846,906	138,059	446,079	777,936	59.62	1,362,074
Marine City	36,349,000	224,273	769,144	1,052,012	56.27	2,045,430
Marquette	259,461,340	1,588,396	2,537,014	7,798,110	45.95	11,923,521
Marshall	66,098,794	386,016	1,277,075	2,809,859	67.67	4,472,952

TABLE X-18. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1981 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total	
					Rate[a]	Taxes
Marysville	149,061,213	919,707	1,664,119	4,783,672	49.43	7,367,499
Mason	43,624,200	350,215	585,436	1,742,786	61.40	2,678,438
McBain	3,423,600	16,645	49,672	111,907	52.06	178,225
Melvindale	104,447,065	764,552	2,433,622	3,906,320	68.02	7,104,495
Memphis	7,057,069	36,898	141,144	234,934	58.52	412,974
Menominee	66,214,895	495,015	1,164,991	2,327,453	60.22	3,987,461
Midland	954,320,386	4,391,323	7,739,642	24,749,706	38.65	36,880,673
Milan	45,803,000	282,301	597,118	1,704,751	56.42	2,584,171
Monroe	502,369,593	3,059,430	6,031,122	16,567,297	51.07	25,657,850
Montaque	16,935,873	108,389	279,442	587,789	57.61	975,621
Montrose	10,804,244	75,413	124,248	365,615	52.32	565,278
Morenci	14,513,548	83,452	186,732	469,513	50.97	739,698
Mount Morris	19,130,918	133,533	337,278	719,322	62.21	1,190,134
Mt Clemens	159,810,822	765,493	3,427,942	7,272,778	71.75	11,466,214
Mt Pleasant	110,916,525	788,616	1,496,574	4,280,268	59.19	6,565,459
Munising	21,411,172	149,430	478,539	718,237	62.87	1,346,208
Muskegon	305,139,450	1,952,892	4,986,588	12,319,693	63.12	19,259,175
Muskegon Hgts.	68,044,380	435,484	1,214,592	2,900,586	66.88	4,550,663
Negaumee	29,870,863	182,866	660,937	634,158	49.48	1,477,962
New Baltimore	48,052,520	230,171	1,009,102	1,726,046	61.71	2,965,321
New Buffalo	21,584,435	117,669	415,499	649,022	54.77	1,182,191
Newaygo	8,830,316	49,554	123,624	296,066	53.14	469,245
Niles	96,205,412	524,473	1,905,059	3,696,692	63.68	6,126,225
North Muskegon	46,550,982	297,926	460,854	1,935,869	57.89	2,694,650
Northville	81,281,151	520,826	1,269,442	3,367,949	63.46	5,158,218

TABLE X-18. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1981 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total	
					Rate[a]	Taxes
Norton Shores	200,023,305	1,280,149	1,677,895	7,545,390	52.51	10,503,434
Norway	20,569,550	161,956	308,549	584,432	51.29	1,054,938
Novi	387,492,127	1,990,043	3,603,250	15,169,226	53.58	20,762,520
Oak Park	272,442,919	1,399,135	6,964,743	12,443,995	76.38	20,807,924
Olivet	6,067,300	33,535	73,167	219,868	53.56	326,571
Omer	1,812,629	11,044	30,814	56,658	54.35	98,517
Onaway	5,784,702	30,832	115,694	140,336	49.59	286,863
Orchard Lk. Vill.	51,233,400	263,119	589,184	2,086,350	57.36	2,938,653
Otsego	36,316,036	221,200	399,476	1,093,101	47.19	1,713,779
Owosso	101,460,129	690,436	1,658,218	3,104,477	53.75	5,453,131
Parchment	32,37,844	194,225	339,898	1,461,867	61.66	1,995,990
Perry	12,173,748	82,842	194,736	389,292	54.78	666,920
Petersburg	6,915,700	42,116	117,566	252,836	59.65	412,520
Petoskey	65,148,801	364,833	759,073	2,140,138	50.10	3,264,045
Pinconning	10,894,491	82,690	191,423	370,723	59.19	644,837
Plainwell	30,885,853	188,125	432,401	1,157,098	57.55	1,777,625
Pleasant Ridge	35,376,350	181,682	773,938	1,633,053	73.18	2,588,674
Plymouth	140,626,993	1,029,389	2,314,160	5,764,862	64.77	9,108,412
Pontiac	691,238,755	3,549,994	17,163,167	29,268,638	72.31	49,981,801
Port Huron	262,850,767	1,621,789	4,368,596	9,972,793	60.73	15,963,179
Portage	443,091,313	2,658,547	4,541,685	17,296,842	55.29	24,497,076
Portland	24,599,400	119,002	343,309	720,199	48.07	1,182,510
Potterville	7,779,029	42,784	116,685	318,712	61.47	478,182
Reading	5,338,627	27,180	74,372	165,497	50.02	267,050
Reed City	14,233,383	78,283	241,969	412,198	51.46	732,452

TABLE X-18. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1981 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total	
					Rate[a]	Taxes
Richmond	27,440,012	131,437	429,436	983,450	56.28	1,544,323
River Rouge	252,423,309	1,847,738	6,007,681	7,204,161	59.66	15,059,580
Riverview	159,169,090	1,165,117	2,925,540	5,413,340	59.71	9,503,998
Rochester	110,477,650	567,380	1,487,029	4,444,769	58.83	6,449,179
Rockford	28,156,900	134,888	394,206	958,179	52.82	1,487,274
Rockwood	29,505,770	215,982	575,363	1,286,451	70.42	2,077,797
Rogers City	33,710,891	179,679	606,796	942,556	51.29	1,729,031
Romulus	286,043,481	2,093,838	3,504,046	11,971,693	61.42	17,569,578
Roosevelt Park	45,548,676	291,511	455,486	1,716,684	54.09	2,463,682
Rose City	5,463,700	36,606	99,882	174,532	56.93	311,021
Roseville	434,853,046	2,082,946	6,801,101	18,251,939	62.40	27,135,986
Royal Oak	680,234,600	3,493,480	9,835,323	29,120,925	62.40	42,449,729
Saginaw	594,811,144	4,080,404	5,650,723	26,088,666	60.22	35,819,795
Saline	95,802,300	594,086	852,640	3,581,089	52.48	5,027,817
Sandusky	20,970,700	107,852	387,957	548,371	49.79	1,044,181
Sault Ste Marie	84,429,203	519,239	1,984,086	3,005,679	65.25	5,509,005
Scottville	10,054,514	49,025	194,414	358,083	59.83	601,523
South Haven	46,982,857	312,436	773,337	1,514,257	55.34	2,600,030
South Lyon	45,249,750	232,389	869,167	1,683,394	61.55	2,784,951
Southfield	1,284,515,125	6,596,884	22,448,186	48,821,447	60.62	77,866,518
Southgate	261,937,790	1,917,384	5,788,848	10,829,037	70.76	18,535,270
Springfield	54,516,400	318,375	967,884	2,238,802	64.66	3,525,062
St. Clair	54,363,699	335,424	1,037,266	1,573,394	54.19	2,946,085
St Clair Shores	659,343,043	3,158,253	10,826,412	26,435,110	61.30	40,419,775
St. Ignace	20,089,984	90,404	359,610	576,582	51.10	1,026,598

TABLE X-18. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1981 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total	
					Rate[a]	Taxes
St. Johns	62,677,963	344,120	883,759	2,104,280	53.16	3,332,161
St. Joseph	119,519,733	651,573	2,147,286	4,797,723	63.56	7,596,584
St. Louis	18,704,022	108,707	280,560	737,125	60.22	1,126,393
Stambaugh	6,761,793	51,676	128,474	222,627	59.57	402,778
Standish	13,251,401	80,739	225,279	389,968	52.52	695,987
Stanton	6,259,560	31,615	75,117	223,286	52.72	330,018
Stephenson	6,521,993	48,757	16,304	172,571	36.44	237,634
Sterling Heights	1,316,213,900	6,304,669	16,413,199	54,821,668	58.91	77,539,537
Sturgis	88,530,463	421,405	991,541	3,028,361	50.17	4,441,307
Swartz Creek	63,184,026	441,025	574,981	2,457,862	54.98	3,473,869
Sylvan Lake	25,214,600	129,494	299,490	1,062,628	59.16	1,491,612
Tawas City	17,036,941	88,592	280,251	427,627	46.75	796,470
Taylor	564,847,228	4,134,681	12,680,844	26,293,638	76.32	43,109,165
Tecumseh	60,403,600	347,320	785,246	2,204,731	55.25	3,337,298
Three Rivers	59,342,300	282,469	821,356	1,955,774	51.66	3,059,570
Traverse City	199,563,485	1,214,443	2,248,264	6,417,754	49.51	9,880,463
Trenton	459,829,885	3,365,954	6,897,468	18,950,122	63.53	29,213,545
Troy	1,261,546,805	6,478,925	13,687,782	48,660,321	54.56	68,827,030
Utica	43,369,264	207,738	780,646	1,868,781	65.88	2,857,167
Vassar	21,023,556	88,942	475,508	584,876	54.67	1,149,327
Wakefield	9,248,207	73,523	185,652	320,172	62.64	579,348
Walker	174,664,890	836,749	873,324	5,958,618	43.91	7,668,692
Walled Lake	49,183,050	252,589	863,457	1,831,198	59.92	2,947,244
Warren	1,934,786,756	9,267,628	26,542,372	82,034,427	60.91	117,844,427
Watervliet	12,484,901	68,062	199,758	409,904	54.28	677,725

TABLE X-18. STATE EQUALIZED VALUATIONS AND PROPERTY TAX LEVIES IN MICHIGAN CITIES: 1981 (cont.)

City	State equalized valuation	County taxes	City taxes	School taxes	Total	
					Rate[a]	Taxes
Wayland	17,067,337	103,957	223,957	540,415	50.88	868,329
Wayne	228,530,062	1,673,572	4,178,216	11,299,486	75.02	17,151,275
West Branch	18,505,600	123,987	337,729	591,142	56.89	1,052,860
Westland	604,764,687	4,426,877	10,738,420	28,566,273	72.31	43,731,571
White Cloud	6,815,732	38,249	105,643	224,046	53.98	367,939
Whitehall	32,901,139	210,567	427,714	1,315,683	59.39	1,953,965
Whittemore	2,885,044	15,002	23,080	78,617	40.45	116,700
Williamston	19,702,751	158,173	359,575	883,668	71.13	1,401,417
Wixom	134,630,350	691,421	1,259,121	5,012,648	51.72	6,963,190
Woodhaven	174,702,686	1,278,823	2,437,102	7,412,580	63.70	11,128,506
Wyandotte	294,024,012	2,152,255	5,545,316	12,734,179	69.49	20,431,752
Wyoming	605,909,150	2,902,668	5,047,236	21,293,110	48.26	29,243,014
Yale	12,480,163	77,002	162,242	344,727	46.79	583,972
Ypsilanti	166,663,000	1,033,506	4,111,576	7,616,499	76.57	12,761,581
Zeeland	59,699,150	252,527	684,995	2,037,794	49.84	2,975,317
Zilwaukee	19,511,800	133,850	295,213	855,787	65.85	1,284,852
STATE TOTAL	47,164,584,870	291,811,655	786,309,939	1,806,769,690	61.71	2,884,891,285

SOURCE: Michigan Department of Treasury, State Tax Commission, special release.

TABLE X-19. HISTORY OF OUTSTANDING DEBT OF LOCAL GOVERNMENTS IN MICHIGAN: 30 JUNE 1943 THROUGH 30 JUNE 1980

(In thousands of dollars)

June 30	Approved during year	Gross debt outstanding	Increase (+) or decrease(-) over preceding year
1943	--	524,938	-50,238
1944	10,120	487,721	-37,217
1945	11,160	458,492	-29,228
1946	16,151	436,144	-22,348
1947	67,979	440,662	+4,518
1948	36,722	441,897	+1,234
1949	84,573	467,039	+25,142
1950	126,226	542,510	+75,471
1951	125,461	581,894	+39,383
1952	202,511	646,012	+64,117
1953	214,838	702,292	+56,279
1954	184,185	820,966	+118,674
1955	179,566	908,472	+87,506
1956	290,451	1,052,676	+144,203
1957	293,913	1,196,846	+144,170
1958	255,835	1,317,220	+120,373
1959	410,698	1,520,304	+203,084
1960	421,284	1,662,906	+142,602
1961	398,507	1,787,002	+124,096
1962	521,376	1,993,658	+206,656
1963	291,348	2,099,554	+105,896
1964	379,377	2,311,606	+212,051
1965	391,750	2,502,027	+190,421
1966	526,918	2,783,167	+287,140
1967	635,432	3,168,082	+384,914
1968	680,783	3,671,601	+503,519
1969	748,673	3,986,009	+314,408
1970	844,074	4,494,679	+508,669
1971	1,268,020	5,104,755	+610,076
1972	1,207,075	5,541,270	+436,514
1973	993,239	5,842,602	+301,331
1974	1,129,697	6,376,186	+533,584
1975	1,368,630	6,844,035	+467,848
1976	1,679,225	7,467,859	+623,824
1977	1,006,121	7,841,682	+373,823
1978	1,749,929	8,506,599	+664,917
1979	2,249,641	9,776,082	+1,269,483
1980	2,446,044	10,461,678	+685,596

SOURCE: Michigan Department of Treasury, special release.

TABLE X-20. DEPARTMENT OF DEFENSE MILITARY AND CIVILIAN PERSONNEL WORKING IN MICHIGAN, BY INSTALLATION: 30 SEPTEMBER 1981

	Military personnel				Civilian personnel				
Installation	Army	Navy	Air Force	Total	Army	Navy	Air Force	Other defense activities	Total
Battle Creek	17	14	8	39	23	1	625	1,155	1,804
Detroit	407	533	34	974	474	11	--	57	742
Grand Rapids	14	20	5	39	16	--	1	89	106
K.I. Sawyer AFB	--	--	3,673	3,673	3	--	420	7	430
Lansing	49	100	6	155	215	1	9	4	229
Sault Ste. Marie	--	--	--	--	215	--	3	--	218
Selfridge AFB	125	217	83	425	204	69	1,318	--	1,591
Sterling Heights	8	--	--	8	1,411	--	--	36	1,447
Warren	4	--	2	6	3,944	--	--	13	3,957
Wurtsmith AFB	--	--	2,737	2,737	4	--	376	5	385
Other	352	88	352	792	573	9	66	213	861
TOTAL	976	972	6,900	8,848	7,082	91	2,818	1,779	11,770

SOURCE: U.S. Department of Defense, Distribution of Personnel by State-by Selected Location as of 30 September, 1981 (Washington, D.C.: 1982), p. 56.

TABLE X-21. GOVERNMENT EMPLOYMENT AND PAYROLLS IN MICHIGAN, BY TYPE OF GOVERNMENT, FOR COUNTIES HAVING 100,000 POPULATION OR MORE AND FOR CITIES HAVING 50,000 POPULATION OR MORE: OCTOBER 1981

Type of government	Number of employees: Full-time only	Number of employees: Full-time equivalent	Number of employees: Total	October payroll ($000)	Average earnings[a]
State	102,523	118,222	153,065	212,444	1,816
Local	268,637	288,739	371,917	511,861	1,780
Counties	40,170	42,463	46,465	59,523	1,410
Municipalities	61,632	63,734	77,703	121,012	1,894
Townships	5,410	6,770	21,830	10,774	1,611
School dist	154,886	168,592	217,385	309,936	1,848
Special dist	6,539	7,180	8,534	10,616	1,483
TOTAL STATE AND LOCAL	371,160	406,961	524,982	724,305	1,790
Counties					
Bay	703	765	868	1,013	1,350
Berrien	1,170	1,249	1,370	1,485	1,206
Calhoun	569	584	615	915	1,568
Genesee	1,598	1,659	1,688	2,967	1,802
Ingham	2,275	2,467	2,674	3,137	1,268
Jackson	752	784	857	982	1,256
Kalamazoo	658	680	723	978	1,444
Kent	1,893	2,046	2,282	2,983	1,471
Livingston	269	290	320	282	985
Macomb	2,042	2,189	2,436	3,280	1,523
Monroe	739	767	828	1,066	1,393
Muskegon	1,113	1,207	1,468	1,405	1,179
Oakland	3,473	3,567	3,772	6,510	1,830
Ottawa	517	595	695	819	1,431
Saginaw	1,310	1,381	1,504	1,931	1,405
St. Clair	670	721	861	1,113	1,564
Washtenaw	1,230	1,290	1,510	1,759	1,365
Wayne	5,575	5,731	6,030	10,448	1,829
Cities					
Ann Arbor	831	864	1,026	1,756	2,038
Dearborn	1,011	1,057	1,267	2,048	1,942
Dearborn Heights	347	362	401	606	1,690
Detroit	19,789	20,397	21,101	48,687	2,392
Farmington Hills	231	258	391	479	1,818
Flint	3,813	3,943	4,346	7,355	1,868

TABLE X-21. GOVERNMENT EMPLOYMENT AND PAYROLLS IN MICHIGAN, BY TYPE OF GOVERNMENT, FOR COUNTIES HAVING 100,000 POPULATION OR MORE AND FOR CITIES HAVING 50,000 POPULATION OR MORE: OCTOBER 1981 (cont.)

Type of government	Number of employees: Full-time only	Number of employees: Full-time equivalent	Number of employees: Total	October payroll ($000)	Average earnings[a]
Cities (cont.)					
Grand Rapids	1,844	1,932	2,549	3,516	1,835
Kalamazoo	1,050	1,105	1,170	1,557	1,426
Lansing	2,742	2,787	3,009	4,427	1,595
Livonia	644	678	884	1,282	1,904
Pontiac	2,289	2,296	2,340	3,793	1,651
Roseville	265	272	302	541	1,998
Royal Oak	393	420	541	815	1,969
Saginaw	739	761	902	1,416	1,856
St. Clair Shores	439	453	505	749	1,668
Southfield	597	642	833	1,298	2,039
Sterling Heights	627	640	703	1,145	1,799
Taylor	392	398	429	578	1,453
Troy	379	401	520	741	1,852
Warren	985	994	1,056	1,900	1,911
Westland	376	388	449	701	1,813
Wyoming	374	397	525	607	1,531

SOURCE: Bureau of the Census, Public Employment in 1981, Series GE 81, no. 1 (Washington, D.C.: 1982), Tables 6 and 8; and Bureau of the Census, County Government Employment in 1981, Series GE 81, no. 4 (Washington, D.C.: 1982), Table 4; and Bureau of the Census, City Employment in 1981, Series GE 81, no. 2 (Washington, D.C.: 1982), Table 4.

NOTE: Figures include faculty and staff of state and local institutions of higher education. Average earnings by counties and cities are for employees other than teachers.

a. Full-time employees only.
n.a.: not available.

TABLE X-22. FULL-TIME EQUIVALENT EMPLOYMENT OF STATE AND LOCAL GOVERNMENTS PER 10,000 POPULATION IN MICHIGAN AND THE UNITED STATES, BY FUNCTION: OCTOBER 1968, 1976, AND 1981

	Michigan			United States		
	1968	1976	1981	1968	1976	1981
Local schools						
Instructional staff	115.5	127.1	115.2	111.7	126.9	122.3
Other	53.0	72.5	57.7	45.5	53.0	54.2
TOTAL	168.5	199.6	172.8	157.1	179.9	176.5
Higher education						
Instructional staff	15.3	19.8	19.9	14.0	19.0	18.8
Other	32.0	36.9	42.5	21.9	30.2	31.9
TOTAL	47.3	56.7	62.4	35.9	49.2	50.7
Other education	1.9	2.7	2.6	2.8	4.0	4.0
TOTAL EDUCATION	217.6	258.9	237.8	195.8	233.1	231.2
Welfare	6.6	16.4	18.7	11.1	15.9	16.1
Hospitals	42.4	40.6	39.2	39.3	44.7	46.4
Health	4.0	7.1	8.2	5.3	8.8	10.0
Highways	21.2	19.0	15.4	28.1	25.7	22.2
Police	18.5	23.3	23.0	20.5	25.4	26.0
Fire protection	8.5	8.3	7.9	9.0	10.0	10.0
Sewerage	2.2	3.1	4.3	2.8	3.8	4.2
Other sanitation	4.7	3.3	2.8	5.9	5.7	5.0
Parks and recreation	4.9	5.1	5.5	5.6	6.9	6.5
Natural resources	4.1	5.6	4.2	7.5	8.8.2	
Correction	5.4	7.8	10.1	6.4	9.6	11.3
Local libraries	2.4	2.2	2.2	2.7	3.0	2.9
Social security administration	3.1	5.4	5.0	3.3	4.8	4.5
Financial administration	9.8	10.2	10.9	10.2	12.1	12.5
General control	9.7	17.0	18.4	11.5	15.9	17.7
Water supply	4.6	4.7	4.6	5.4	5.5	5.3
Other local utilities	5.0	5.2	2.2	7.6	8.8	3.4
State liquor stores	.7	.6	.8	.7	.7	.6
Other	11.4	17.5	20.8	17.1	26.8	32.0
TOTAL	386.9	461.4	442.2	395.9	475.5	476.1

SOURCE: Bureau of the Census, Public Employment in 1980 (Washington, D.C.: 1980), GE-78, no. 1, Table 11; and similar documents for 1976 (Table 11) and 1968 (Table 11).

TABLE X-23. RANKING OF MICHIGAN COUNTIES ACCORDING TO LABOR AND PROPRIETORS' EARNINGS IN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY IS FEDERAL GOVERNMENT AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1981

County	Percentage		County	Percentage	
	1971	1981		1971	1981
Iosco	49.70	41.72	Newaygo	1.43	1.44
Marquette	22.21	15.44	Presque Isle	5.03	1.43
Chippewa	41.45	10.11	Mason	1.18	1.39
Dickinson	8.12	8.72	Osceola	1.88	1.39
Calhoun	6.05	8.18	Sanilac	1.38	1.39
Crawford	7.37	6.06	Eaton	1.64	1.38
Macomb	5.42	4.88	Baraga	1.52	1.37
Leelanau	7.12	4.53	Kalamazoo	1.50	1.35
Cheboygan	3.03	4.14	Roscommon	1.69	1.31
Houghton	5.73	3.88	Isabella	1.67	1.26
Gogebic	3.46	3.83	Allegan	1.39	1.26
Mackinac	2.91	3.45	Van Buren	1.54	1.25
Alcona	4.97	3.44	Livingston	1.43	1.24
Keweenaw	23.42	3.28	Ionia	1.43	1.22
Lake	3.17	3.28	Cass	1.40	1.21
Charlevoix	3.40	3.17	Manistee	1.93	1.20
Benzie	2.27	2.44	Barry	1.39	1.20
Wexford	2.96	2.41	Lapeer	1.33	1.18
Grand Traverse	2.16	2.38	Tuscola	1.41	1.17
Clinton	2.04	2.38	Menominee	1.79	1.17
Delta	2.35	2.36	Kent	1.34	1.15
Alger	2.15	2.31	Hillsdale	1.44	1.14
Oscoda	1.50	2.27	Muskegon	1.25	1.12
Otsego	2.37	2.22	Bay	1.29	1.12
Oceana	2.51	2.16	Montcalm	1.19	1.11
Wayne	1.99	2.13	Berrien	1.09	1.08
Gladwin	1.85	2.05	Jackson	1.27	1.08
Washtenaw	1.97	2.03	Alpena	2.45	1.06
Arenac	2.70	2.00	Lenawee	0.97	1.02
Missaukee	1.45	1.99	Monroe	1.72	1.00
Montmorency	1.55	1.95	Gratiot	1.36	0.98
Huron	2.45	1.80	Ottawa	1.01	0.95
Clare	2.05	1.80	Kalkaska	2.83	0.91
Ingham	2.12	1.78	Branch	1.14	0.87
Saginaw	1.51	1.65	Genesee	0.93	0.82
Emmet	2.24	1.64	Ontonagon	1.16	0.81
Iron	4.19	1.64	St. Joseph	0.93	0.77
Antrim	2.38	1.64	Luce	1.07	0.77
Schoolcraft	2.38	1.55	Oakland	1.31	0.72
St. Clair	1.57	1.53	Midland	0.61	0.50
Shiawassee	1.38	1.50			
Mecosta	1.52	1.47	Michigan	2.34	2.06
Ogemaw	2.24	1.45	United States	6.72	5.37

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Earnings of federal employees include earnings of military and civilian personnel.

TABLE X-24. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN FEDERAL GOVERNMENT: 1980-1981

County	Percentage change 1971-1981	Percentage change 1980-1981	County	Percentage change 1971-1981	Percentage change 1980-1981
Lake	58	31	Saginaw	153	9
Oscoda	225	26	Ogemaw	95	9
Luce	86	25	Macomb	105	9
Montmorency	129	23	Gladwin	188	9
Cheboygan	240	23	Delta	158	9
Mackinac	196	20	Ionia	127	8
Grand Traverse	252	19	Wexford	128	8
Shiawassee	121	17	Calhoun	193	8
St. Clair	135	16	Lapeer	117	8
Washtenaw	202	16	St. Joseph	97	7
Benzie	154	16	Clare	116	7
Clinton	211	15	Alcona	62	7
Midland	107	14	Muskegon	106	6
Ottawa	171	14	Emmet	77	6
Dickinson	178	14	Leelanau	33	6
Isabella	127	14	Huron	77	6
Schoolcraft	60	14	Monroe	56	6
Presque Isle	-31	13	Ingham	121	6
Kent	129	13	Hillsdale	86	6
Mecosta	158	13	Crawford	129	5
Kalamazoo	136	13	Sanilac	104	5
Charlevoix	159	13	Genesee	114	5
Berrien	96	13	Keweenaw	-85	5
Van Buren	94	12	Barry	94	5
Chippewa	-61	12	Oakland	60	4
Montcalm	128	12	Allegan	133	4
Bay	100	12	Tuscola	110	4
Antrim	68	12	Eaton	108	4
Cass	100	12	Wayne	102	4
Missaukee	261	12	Arenac	91	4
Mason	122	11	Roscommon	114	4
Otsego	250	11	Baraga	82	3
Marquette	94	11	Alpena	-2	3
Branch	84	11	Osceola	85	3
Alger	144	11	Gogebic	107	2
Newaygo	114	11	Manistee	46	1
Livingston	167	11	Menominee	71	1
Lenawee	104	10	Gratiot	71	-1
Iosco	63	10	Ontonagon	33	-1
Kalkaska	139	10	Houghton	63	-7
Jackson	91	10			
Iron	-7	10	Michigan	102	8
Oceana	112	10	United States	105	9

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE X-25. RANKING OF MICHIGAN COUNTIES ACCORDING TO LABOR AND PROPRIETORS' EARNINGS IN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY IS STATE OR LOCAL GOVERNMENT AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1981

County	Percentage		County	Percentage	
	1971	1981		1971	1981
Luce	64.57	72.30	Wexford	13.87	14.80
Mecosta	39.05	41.65	Clinton	19.30	14.44
Lapeer	27.00	34.23	Missaukee	19.05	14.07
Roscommon	27.11	33.76	Otsego	18.73	13.96
Keweenaw	24.90	33.48	Barry	12.54	13.86
Lake	17.48	31.17	Ontonagon	10.55	13.76
Oscoda	27.02	30.23	Mason	9.07	13.68
Houghton	26.19	29.90	Delta	13.45	13.34
Isabella	33.30	29.11	Kalamazoo	13.72	13.25
Chippewa	16.97	28.22	Ogemaw	19.17	13.15
Iron	27.96	27.70	Manistee	12.16	13.01
Baraga	21.87	27.54	Dickinson	11.24	12.92
Gogebic	19.74	24.97	Charlevoix	13.69	12.90
Ingham	22.86	24.79	St. Clair	11.85	12.79
Branch	22.67	24.58	Cass	13.19	12.74
Mackinac	22.69	24.39	Hillsdale	11.91	12.57
Tuscola	21.47	23.86	Cheboygan	11.54	12.54
Oceana	17.64	23.18	Sanilac	10.70	12.52
Schoolcraft	22.66	22.04	Monroe	12.62	12.20
Clare	17.64	22.03	Jackson	11.48	12.15
Washtenaw	24.02	21.93	Bay	10.51	11.86
Montmorency	20.08	20.57	Iosco	8.75	11.84
Crawford	20.12	20.38	Lenawee	9.21	11.63
Livingston	20.38	19.99	Allegan	12.78	11.45
Ionia	19.97	19.80	Emmet	11.26	11.38
Alger	19.62	19.40	Kalkaska	26.19	10.90
Alcona	24.26	19.06	St. Joseph	10.25	10.69
Huron	16.03	18.24	Gratiot	10.37	10.29
Shiawassee	11.08	18.07	Wayne	9.19	9.78
Marquette	18.22	17.64	Montcalm	10.94	9.69
Alpena	16.68	17.11	Muskegon	9.64	9.62
Leelanau	13.34	16.77	Berrien	8.21	9.41
Gladwin	18.26	16.53	Macomb	8.78	9.13
Newaygo	12.93	16.52	Ottawa	9.48	8.90
Eaton	17.25	16.41	Oakland	9.46	7.86
Grand Traverse	17.78	16.40	Genesee	8.35	7.85
Osceola	18.94	16.28	Calhoun	7.94	7.54
Benzie	16.05	16.01	Saginaw	7.38	7.47
Arenac	19.84	15.85	Kent	7.13	7.46
Van Buren	14.72	15.61	Midland	6.47	6.23
Presque Isle	14.87	15.36			
Antrim	14.47	15.17	Michigan	10.99	11.43
Menominee	12.94	14.82	United States	11.20	10.94

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

NOTE: Earnings of state and local employees include earnings of military (national guard) and civilian personnel. The latter include faculty and staff of state and local institutions of higher education, public schools, those who staff police and fire departments and other state and local units.

TABLE X-26. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN STATE AND LOCAL GOVERNMENT: 1980-1981

County	Percentage change 1971-1981	Percentage change 1980-1981	County	Percentage change 1971-1981	Percentage change 1980-1981
Emmet	144	18	Clare	209	4
Chippewa	165	17	Ingham	185	3
Leelanau	164	14	Washtenaw	167	3
Mackinac	169	14	Manistee	152	3
Kent	180	13	St. Clair	160	3
Delta	155	11	Clinton	100	3
Ontonagon	148	11	Genesee	128	2
Bay	160	10	Jackson	138	2
Presque Isle	151	10	Eaton	134	2
Baraga	154	10	Marquette	169	2
Arenac	107	9	Oceana	224	2
Benzie	136	9	Luce	187	2
Dickinson	197	8	Alcona	85	2
Wexford	199	8	Muskegon	129	2
Van Buren	153	8	Isabella	164	2
Shiawassee	232	8	Lake	172	2
Huron	174	8	Newaygo	171	2
Kalkaska	209	8	Missaukee	94	1
Roscommon	243	8	Livingston	202	1
Keweenaw	40	7	Charlevoix	162	1
Mason	184	7	Alger	125	1
Midland	146	7	Oscoda	140	0
Iosco	163	7	Wayne	100	0
Menominee	202	7	Cheboygan	171	0
Oakland	142	6	Gratiot	135	0
Berrien	127	6	Montmorency	86	0
Lapeer	211	6	Ogemaw	106	0
Alpena	132	5	Saginaw	135	-1
Hillsdale	149	5	Cass	125	-2
Macomb	137	5	Ionia	162	-3
Branch	163	5	Allegan	131	-3
Iron	136	5	Gladwin	135	-3
Houghton	175	5	Barry	150	-3
Kalamazoo	154	5	Otsego	179	-4
Crawford	183	5	Osceola	115	-4
Monroe	158	4	Calhoun	106	-4
Gogebic	137	4	Lenawee	146	-5
St. Joseph	146	4	Antrim	155	-5
Tuscola	181	4	Schoolcraft	138	-6
Sanilac	137	4	Montcalm	118	-7
Mecosta	184	4			
Grand Traverse	194	4	Michigan	138	3
Ottawa	171	4	United States	151	8

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

XI. OUTDOOR ENVIRONMENT

Michigan's land area is 56,817 square miles, its water area 1,399 square miles. The state's highest elevation, Mount Curwood, in the Porcupine Mountains, is 1,980 feet above sea level. Michigan's lowest elevation of 572 feet is on Lake Erie.

The records of the General Services Administration indicate that the federal government owns or leases around 3,400,000 acres of land in the state. The Michigan Department of Natural Resources and the State Military Board own about 4,400,000 acres.

Land areas of Michigan counties are given in the U.S. Census of Population: 1970. Statistics on gross county areas are available from the Michigan Department of Natural Resources.

Data pertaining to climate at Michigan weather stations are available in Climate of Michigan, by Stations, a publication of the Michigan Weather Service. Separate reports, Local Climatological Data, are available for the stations at Alpena, Detroit, Escanaba, Flint, Grand Rapids, Lansing, Marquette, Muskegon, and Sault Ste. Marie. The Michigan Weather Service also publishes specific reports, such as those on temperature extremes and snowfall.

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TABLE XI-1. MICHIGAN CLIMATE, BY WEATHER STATIONS: 1981

	Temperature (°F)				Precipitation (inches)	
	January		July			
Station	Average	Departure from normal[a]	Average	Departure from normal[a]	Annual total	Departure from normal[a]
West Upper Division						
Alberta Ford Forestry Ctr	13.1		67.2		42.0	
Baraga	13.0M		64.2		40.5M	
Beechwood 7 WNW	13.2		65.6		41.5	
Bergland Dam	11.4		65.1		--	
Big Bay 1 S	18.0		65.9		42.3M	
Champion Van Riper Pk	11.1		63.5		39.5M	
Copper Harbor	19.5		63.3		41.3	
Crystal Falls 6 NE	8.8		64.7		39.3	
Herman	12.1		64.0		39.9	
Houghton FAA AP	15.8	1.3	66.7	2.6	41.3	1.9
Iron Mntn Water Works	14.8	0.4	67.4	0.5	43.1	1.3
Ironwood	9.7	-2.9	65.5	-2.0	39.9	-1.4
Ishpeming	15.6	0.9	66.9	1.1	41.8	0.8
Kenton Forest	M		65.3	-0.2		
Marquette	18.2	-0.2	65.9	-0.4	42.8	0.2
Marquette WSO CI	13.9	1.2	65.7	1.5	40.1	1.3
Mott Island Isle Royal			59.6			
Ontonagon 6 SE	17.2		66.8		43.4	
Stambaugh 1 S	11.2	-2.2	64.8	-0.8	41.0	0.2
Stephenson 8 WNW	15.2		67.3		43.5	
Watersmeet	9.6	-2.6	65.2M	0.1	39.4M	-0.5
Division	13.8	-0.6	65.3		41.1	0.3
East Upper Division						
Chatham Esperimental Farm	15.6	-1.2	65.2	0.1	41.7	0.2
Cornell 4 WSW	15.0		65.9M		42.0M	
Detour Village	11.5		68.3		42.9	
Dunbar Forest Exp Station	10.5		64.5M		40.7M	
Escanaba	15.0	-2.4	66.4	-0.3	42.2	-0.2
Fayette 3 SW 2 E	17.1	-1.7	67.2	1.5	43.5	0.7
Grand Marais	17.5	-0.7	62.3	-0.4	40.8M	0.0
Manistique	15.8	-2.4	65.8	0.7	41.8M	-0.2
Munising	17.7	-0.5	65.8	0.9	42.7	0.8
Newberry State Hosp	14.1M	-2.2	65.9	1.1	41.3M	0.3
Rudyard 4 N	12.2		65.4		41.2M	
St Ignace-Mackinac Brdg	14.5		66.5		42.3M	

TABLE XI-1. MICHIGAN CLIMATE, BY WEATHER STATIONS: 1981 (cont.)

	Temperature (°F)				Precipitation (inches)	
	January		July			
Station	Average	Departure from normal[a]	Average	Departure from normal[a]	Annual total	Departure from normal[a]
East Upper Division (cont.)						
Sault Ste. Marie WSO	8.8	-5.4	63.4	-0.4	39.2	-0.9
Seney National WLR	11.4	5.3	67.9M	1.9		
Tahquamenon Falls Pk	14.7		64.0		40.3M	
Trout Lake	11.6		63.1M		40.1M	
Whitefish Point	14.7		62.1		40.4M	
Division	14.0	1.0	65.3	0.6	41.5	0.1
Northwest Lower Division						
Boyne Falls	15.8		67.9		44.8M	
Cadillac	15.8	-2.1	65.0	-1.1	42.5M	
Cross Village	17.2		67.3		44.2	
East Jordon	17.8	-0.5	66.4M	-1.4	44.7M	-0.1
Fife Lake 4 SW	M		67.9			
Frankfort 2 NE	21.9		M			
Houghton Lake 6 WSW	14.4	-4.9	65.8	-1.9	42.4M	-2.0
Lake City Exp Farm	13.9M	-4.4	66.3	-0.9	42.2M	-1.2
Manistee	M		M			
Maple City	20.6		69.2		46.3M	
Old Mission 3 SSW	20.4M		67.8		44.7M	
Pellston FAA AP	13.2	-3.3	67.4	1.9	42.9	1.4
Petoskey	18.6		67.4		44.8	
St. James-Beaver Island	17.0					
Traverse City FAA AP	18.5	-2.3	69.9	1.2	45.7	0.9
Division	17.3	-2.9	67.4	0.1	44.2	0.0
Northeast Lower Division						
Alpena WSO AP	14.7	-3.1	67.5	2.0	43.3	1.2
Alpena WW Trtmt Plant	17.0	-3.5	68.2	1.2	44.7	0.9
Atlanta 2 SW	12.0	-6.6	66.7	-0.5	43.3M	-0.4
Cheboygan	14.1	-5.5	68.0M	0.0	43.2M	-0.9
East Tawas	--		--		--	
Gaylord 2 W	15.3		67.3		43.8M	

TABLE XI-1. MICHIGAN CLIMATE, BY WEATHER STATIONS: 1981 (cont.)

	Temperature (°F)				Precipitation (inches)	
	January		July			
Station	Average	Departure from normal[a]	Average	Departure from normal[a]	Annual total	Departure from normal[a]
Northeast Lower Division (cont.)						
Grayling	11.8	-6.3	66.6	-0.8	42.3M	-1.2
Hale Loud Dam	14.2	-4.3	67.7	0.6	44.4M	0.8
Harrisville 6 N	18.2		67.7		45.0M	
Houghton Lake WSO AP	14.8	-2.6	66.8	0.6	43.7	1.0
Lupton 1 S	13.9		67.0		42.9M	
Mio Hydro Plant	14.9	-3.0	67.7	0.9	43.8M	0.8
Onaway State Park	15.3M	-3.5	69.7	1.7		
Rogers City 5 SE	12.7		66.7		42.6M	
Vanderbilt 11 ENE	9.9	-7.4	65.5	-0.4	41.3M	-1.0
West Branch	14.6	-3.8	68.0	0.9	43.8M	0.3
Division	14.2	-4.7	67.4	0.3	43.5	-0.1
West Central Lower Division						
Baldwin	16.0	-4.8	67.8M	-1.2	44.2M	-1.4
Hart	21.0	-2.3	69.1	-0.7	46.4	-0.7
Hesperia 4 WNW	17.6		69.2		45.3	
Ludington 4 SE	22.2M	-1.1	69.8	1.1		
Montague 4 NW	21.1		66.1		45.6	
Muskegon WSO AP	20.6	-3.4	69.7	-0.3	47.0	-0.3
Newaygo 2	--		--		--	
Scotville 1 NE	--		--		--	
Division	19.8	-2.7	68.6	-0.6	46.0	-0.4
Central Lower Division						
Alma	16.9	-5.4	68.8	-2.8	45.0	-2.7
Big Rapids Water Works	18.[illegible]	-2.5	68.2	-0.9	45.5	-0.1
Evart	15.5		68.0		44.2	
Gladwin	15.3M	-4.4	69.2	0.5	45.9M	1.0
Greenville 2 NNE	17.4	-5.1	68.7	-2.6	46.2	-1.4
Midland	18.9	-4.2	71.5	-0.1	47.7M	-0.2
Mt. Pleasant Univ	17.5	-4.1	69.6	-1.3	45.8	-1.3
Division	17.1	-4.4	69.1	-1.1	45.8	-0.8
East Central Lower Division						
Bad Axe	16.6	-4.9	67.8M	-1.6	36.68	7.86
Caro State Hospital	17.3	-4.7	69.9	-0.4	34.23	6.03
Cass City 1 SSW	--		--		36.36	
Essexville	16.3	-6.8	70.6	-1.4	34.30	7.12
Harbor Beach 1 SSE	17.7	-4.2	67.7	-0.7	40.28	6.93

TABLE XI-1. MICHIGAN CLIMATE, BY WEATHER STATIONS: 1981 (cont.)

	Temperature (°F)				Precipitation (inches)	
	January		July			
Station	Average	Departure from normal[a]	Average	Departure from normal[a]	Annual total	Departure from normal[a]
East Central Lower Division (cont.)						
Millington 3 SW					36.85	8.40
Saginaw Consumers Pwr Co.	20.0		72.0		37.41	
Saginaw 3					38.28	
Saginaw FAA AP	16.7	-4.7	68.7	-1.9	32.46	2.39
Saint Charles	--		72.8		34.11	5.21
Sandusky	16.6M	-5.8	69.4	-0.9	36.90	7.97
Sebewaing Mich. Sugar Co.	--		--		31.86	4.97
Standish 1 N	13.9	-6.5	67.9	-1.2	35.96	8.19
Division	16.9	-5.0	69.6	-0.7	35.82	6.70
Southwest Lower Division						
Allegan	20.1	-4.7	71.0	-1.0	39.41	6.36
Benton Harbor AP	23.2	-2.7	70.0M	-1.4	36.08	0.04
Bloomingdale	20.6	-4.2	69.6	-2.2	37.81	1.07
Dowagiac 1 W	21.3		70.8		40.60	
Eau Claire 4 NE	22.9	-1.8	71.9	-1.1	34.26	-1.34
Grand Haven Fire Dept.	24.5	-1.0	71.7	1.5	30.21	-1.07
Grand Rapids WSO AP	20.8	-2.4	72.1	0.6	44.84	12.45
Gull Lk Bio Station	20.4	-3.1	72.5	0.5	36.21	2.56
Holland	22.7	-2.7	70.2	-1.2	35.26	0.25
Kalamazoo State Hosp.	23.6M	-1.2	73.4	0.5	33.15	-0.84
Kent City 2 SW					33.27	1.25
Lowell					34.02	3.64
Lowell 2 SE					37.24	4.60
Niles					48.00	
South Haven	24.2	-2.2	69.7	-1.0	34.67	1.26
Division	22.2	-2.7	71.2	-0.6	36.60	2.06
South Central Lower Division						
Albion	--		--		37.89	4.10
Battle Creek	20.9	-2.4	71.4	-0.4	33.32	-0.82
Burlington 3 E	--		--		42.67	
Charlotte	17.9	-5.2	70.6	-0.4	30.58	-1.87
Coldwater State Schl.	18.5	-5.4	71.0	-0.1	43.33	9.54
Dimondale	--		--		32.21	
East Lansing 4 S	17.1		69.6		32.23	
Eaton Rapids	--		--		34.00	3.77
Grand Ledge 1 NW	--		--		35.73	5.32
Hastings	18.1	-5.5	70.1	-1.7	39.94	9.01
Hastings 3 SE	--		--		35.88	
Hillsdale	18.5	-5.1	70.0	-0.6	43.48	6.75

TABLE XI-1. MICHIGAN CLIMATE, BY WEATHER STATIONS: 1981 (cont.)

	Temperature (°F)				Precipitation (inches)	
	January		July			
Station	Average	Departure from normal[a]	Average	Departure from normal[a]	Annual total	Departure from normal[a]
South Central Lower Division (cont.)						
Jackson FAA AP	19.4	-3.6	73.0	1.3	38.76	8.41
Lansing WSO AP	17.6	-5.0	71.1	0.2	31.53	1.14
Munith 5 SW	--		--		32.86	
Nottawa 3 SE	--		--		41.40	
Owosso Wastew. Plt.	18.6	-4.4	70.4	-0.3	33.81	4.24
St. Johns	19.5	-3.1	70.6M	-0.7	33.99	3.54
Three Rivers	20.4	-4.1	72.4	0.4	42.73	8.58
White Pigeon 3 ENE	--		--		38.97	
Williamston	--		--		30.84	
Division	18.8	-4.5	70.9	-0.4	36.89	4.87
Southeast Lower Division						
Adrian 2 NNE	17.2	-7.1	71.7	-0.7	40.50	7.60
Almont	--		--		37.00	
Ann Arbor, Univ of Mich	19.9	-5.0	72.3	-0.4	36.02	5.48
Chelsea 1 NE	--		--		34.01	
Dearborn	19.6		72.7		36.24	
Detroit City AP	20.6	-4.9	74.3	1.0	--	
Detroit Metro WSO AP	19.0	-5.6	72.4	0.1	33.53	1.84
Flint WSO AP	18.1	-4.2	70.7	1.0	34.06	4.29
Flint 7 W	--		--		36.82	
Grosse Pointe Farms	21.9		73.4		38.65	
Howell WW Plt.	--		--		33.50	3.52
Hudson	--		--		--	
Lapeer	17.5M	-5.1	70.2M	-0.3	38.03	9.49
Milford GM Proving Grnd.	19.9	-2.2	71.0	0.4	46.13	12.98
Monroe	19.7M	-6.0	73.9	0.5	36.63	5.34
Morenci	--		--		47.38	
Mt. Clemens AF Base	19.4	-4.7	71.3	-0.6	35.62	7.93
Pontiac State Hosp.	19.4	-4.1	72.8	-0.9	32.90	2.84
Port Huron	19.8	-4.7	72.3	0.5	38.36	5.03
Washington 2 NNW	18.9		71.9		33.27	
Willis 5 SSW	16.9	-6.5	70.8	-0.1	43.31	11.18
Yale 1 NNE	--		--		31.81	2.37
Ypsilanti, EMU	20.4	-4.3	73.3	0.5	35.55	4.87
Division	19.3	-4.8	72.2	0.2	37.25	6.12

SOURCE: National Oceanic and Atmospheric Administration, Climatological Data-Michigan Annual Summary, 1981, vol. 96, no. 12 (Asheville, N.C.: 1982), Tables 1 and 2.

a. Normals for all stations are climatological normals based on the period 1941-1970.

M: One or more days record missing; if average value is entered, less than 10 days record is missing.

E: Amount is wholly or partially estimated.

AP: Airport.

WSO: Weather station office.

Station Names: Figures and letters following the station name, such as 12 SW, indicate distance in miles and direction from post office.

TABLE XI-2. STATE PARK USE AND TURNAWAY IN MICHIGAN: 1968-1981

Year	Number of day users[a]	Number of camper days[a]	Total attendance[a]	Number of camp permits	No. of vehicles turned away	
					Camping	Day use
1968	n.a.	n.a.	17,704	389,402	42,615	72,892
1969	n.a.	n.a.	18,956	409,140	75,527	57,289
1970	14,384	6,108	20,492	464,541	86,032	42,206
1971	15,419	6,495	21,914	491,807	84,258	52,465
1972	12,941	6,251	19,191	485,616	59,730	27,719
1973	13,606	6,248	19,849	496,812	57,445	25,378
1974	13,358	6,128	19,486	471,313	71,711	31,973
1975	14,768	5,598	20,366	462,123	70,962	46,708
1976	16,132	5,882	22,014	482,787	77,218	35,085
1977	n.a.	n.a.	22,344	480,133	79,107	40,154
1978	n.a.	n.a.	23,656	475,551	66,613	65,708
1979	n.a.	n.a.	21,426	422,371	51,128	38,227
1980	15,598	5,187	210,784	403,450	55,333	47,527
1981	20,812	5,257	20,812	398,404	49,205	29,219

SOURCE: Michigan Department of Natural Resources, special release.

a. Figures in thousands.
b. Number of vehicles.
n.a.: not available.

TABLE XI-3. STATE FOREST CAMPGROUND USE: 1968-1981

Year	Number of camps	Number of campers	Camper days	Number of day users[a]
1968	45,000	175,569	691,816	173,525
1969	56,746	220,117	83,341	220,535
1970	68,623	268,164	995,974	329,934
1971	73,714	284,779	1,083,684	352,796
1972	70,899	268,099	996,409	356,170
1973	79,114	292,746	1,040,361	391,782
1974	77,716	288,243	1,070,023	391,782
1975	82,359	283,232	1,059,659	396,741
1976	88,024	304,784	1,122,527	529,000
1977	90,227	311,539	1,147,905	n.a.
1978	85,806	299,197	1,067,043	529,246
1979	73,143	248,167	748,090	380,530
1980	71,168	242,025	615,126	282,289
1981	76,606	258,573	537,291	243,411

SOURCE: Michigan Department of Natural Resources, special release.

a. estimates.
n.a.: not available.

TABLE XI-4. LOCATION, ACREAGE, NUMBER OF CAMPSITES, AND USAGE OF MICHIGAN STATE PARKS: 1979-1981

Name	Post office location	Acreage	Number of campsites	Attendance 1979	Attendance 1980	Attendance 1981
			Upper Peninsula			
Baraga	Baraga US-41	56	137	42,492	33,009	35,695
Bewabic	Crystal Falls US-2	200	144	49,383	52,091	49,681
Brimley	Brimley M-221	151	270	148,627	152,553	160,797
Detour[a]	St. Ignace M-34	403	22	n.a.	n.a.	n.a.
Fayette	Fayette US-2	365	80	101,167	102,731	105,260
Fort Wilkins	Copper Harbor US-41	199	165	211,895	182,186	189,067
Indian Lake	Manistique M-149	567	300	104,108	105,983	100,099
Lake Gogebic	Marenisco M-64	361	165	71,228	55,293	56,059
McLain	Hancock M-203	401	90	152,966	171,223	168,170
Muskallonge Lake	Newberry M-123	217	179	54,332	61,715	64,748
Palms Book	Manistique M-149	308	(b)	56,386	63,803	62,494
Porcupine Mtns	Ontonagon M-107	58,332	199	305,083	328,727	362,557
Straits	St. Ignace I-75	181	318	285,582	216,613	202,448
Tahquamenon Falls	Paradise M-123	21,241	319	495,541	520,862	537,437
Twin Lakes	Winona M-26	175	62	26,542	27,328	28,112
Van Riper	Champion US-41	1,044	226	80,865	79,747	81,036
J.W. Wells	Cedar River M-35	974	155	83,881	85,101	86,242
Subtotal				2,270,078	2,238,965	2,289,902
			Northern Lower Peninsula			
Aloha	Cheboygan M-212	91	284	109,302	202,894	199,842
Bay City	Bay City M-247	196	255	206,168	268,836	262,872
Burt Lake	Indian River I-75	405	360	174,232	174,793	177,645
Cheboygan	Cheboygan US-23	932	78	49,763	47,352	48,925

TABLE XI-4. LOCATION, ACREAGE, NUMBER OF CAMPSITES, AND USAGE OF MICHIGAN STATE PARKS: 1979-1981 (cont.)

Name	Post office location	Acreage	Number of campsites	Attendance		
				1979	1980	1981
	Northern Lower Peninsula (cont.)					
Clear Lake	Atlanta M-33	290	200	74,061	65,487	61,715
Fisherman's Island	n.a.	2,608	41	35,288	36,064	63,037
Gladwin	Gladwin M-18	381	45	51,339	49,555	43,587
Harrisville	Harrisville US-23	94	229	109,658	112,782	110,576
Hartwick Pines	Grayling M-93	9,221	46	200,252	183,036	198,370
Hoeft	Rogers City US-23	301	144	49,840	50,578	49,295
Interlochen	Interlochen M-137	187	550	290,185	305,343	295,190
Leelanau[a]	Glen Arbor Co. Rd. 201	1,044	42	149,501	112,461	70,300
Ludington	Ludington M-116	4,156	398	761,972	769,017	745,724
Mears	Pentwater US-31	50	179	348,554	350,636	318,455
Mitchell	Cadillac M-115	32	270	185,379	194,401	216,928
Newaygo	Newaygo M-37	257	99	40,049	31,234	31,291
North Higgins Lake	Roscommon M-18, M-76	429	204	188,033	205,028	217,063
Onaway	Onaway M-211	158	101	72,300	69,069	50,173
Orchard Beach	Manistee M-110	201	175	91,281	85,080	86,951
Otsego Lake	Gaylord I-75	62	203	204,188	219,781	225,524
Petoskey	Petoskey US-31	305	90	252,914	235,457	173,420
Pinconning[a]	Pinconning M-13	201	(c)	n.a.	42,228	81,891
Rifle River	Lupton M-33	4,329	159	106,968	107,444	110,668
Silver Lake	Mears US-31	2,685	249	713,003	693,955	695,967
South Higgins Lake	Roscommon US-27	305	504	299,050	293,630	340,301
Tawas Point	E. Tawas US-23	175	202	256,293	246,394	253,777
Traverse City	Traverse City US-31	39	330	257,224	224,390	232,953
White Cloud	White Cloud M-20	89	80	55,122	32,825	43,974
Wilderness	Carp Lake US-31	7,514	210	154,644	150,241	150,491

TABLE XI-4. LOCATION, ACREAGE, NUMBER OF CAMPSITES, AND USAGE OF MICHIGAN STATE PARKS: 1979-1981 (cont.)

Name	Post office location	Acreage	Number of campsites	Attendance 1979	Attendance 1980	Attendance 1981
			Northern Lower Peninsula (cont.)			
Wilson	Harrison I-75	36	160	102,852	103,973	107,235
Young	Boyne City M-75	563	293	151,849	147,625	141,867
Subtotal and average increase				5,741,264	5,811,589	5,806,007
			Southern Lower Peninsula			
Algonac	Algonac M-29	1,023	300	271,151	263,874	273,306
Bald Mountain	Lake Orion M-24	3,118	25	515,310	537,264	471,061
Brighton	Howell I-96	4,826	222	261,388	235,466	244,036
Dodge #4	Pontiac M-59	136	(b)	484,708	476,666	456,705
Duck Lake[a]	n.a.	610	n.a.	68,309	74,250	64,737
Fort Custer	Augusta I-94	2,962	112	106,195	103,620	71,467
Grand Haven	Grand Haven US-31	48	170	597,383	582,214	667,111
W. J. Hayes	Onsted US-12	654	210	491,911	529,510	444,900
Highland	Milford M-59	5,504	25	335,521	327,357	302,931
Hoffmaster	Muskegon US-31	1,043	333	386,663	360,940	414,485
Holland	Holland US-31	143	342	1,346,517	1,414,760	1,397,579
Holly	Holly I-75	7,446	144	652,473	686,852	701,812
Ionia	Saranac M-66	3,998	25	70,188	60,587	69,963
Island Lake	Brighton I-96	3,466	25	426,606	340,280	381,941
Lake Hudson	n.a.	2,650	n.a.	4,724	34,627	24,137
Lakeport	Port Huron US-23	565	256	244,771	275,811	241,339
Maybury	Northville	944	6	123,143	118,861	148,944
Metamora-Hadley	Metamora M-24	683	211	241,060	179,466	188,916
Muskegon	North Muskegon M-213	1,357	357	434,361	387,607	329,627
Ortonville	Ortonville M-75	4,106	70	164,400	132,944	121,532

TABLE XI-4. LOCATION, ACREAGE, NUMBER OF CAMPSITES, AND USAGE OF MICHIGAN STATE PARKS: 1979-1981 (cont.)

Name	Post office location	Acreage	Number of campsites	Attendance 1979	Attendance 1980	Attendance 1981
	Southern Lower Penisula (cont.)					
Pinckney	Pinckney M-36	9,788	270	423,852	380,752	362,996
Pontiac Lake	Pontiac M-59	3,757	183	405,175	273,776	197,330
Port Crescent	Port Austin M-25	655	181	126,593	117,899	130,750
Proud Lake	Milford I-96	3,515	140	355,279	269,062	270,410
Rochester-Utica	Utica M-59	1,242	(b)	484,397	409,833	384,182
Sanilac[a]	Port Austin US-25	112	19	12,965	12,122	13,170
Saugatuck	n.a.	509	n.a.	11,714	24,365	30,902
Seven Lakes	Fenton US-23, I-75	1,378	(b)	172,929	104,442	91,724
Sleeper	Caseville M-25	1,003	271	193,758	222,974	205,534
Sleepy Hollow	Lansing US-27	2,678	(c)	185,076	166,407	213,246
Sterling	Monroe I-75	997	192	801,697	857,514	907,025
Van Buren	South Haven I-196	326	205	346,734	286,057	277,126
Warren Dunes	Sawyer I-94	1,502	197	1,258,758	1,244,851	1,329,545
Waterloo	Chelsea I-94	17,854	434	728,598	636,386	657,698
Yankee Springs	Middleville M-37	5,001	345	599,219	604,340	627,840
Subtotal and averate % increase				13,333,526	12,733,736	12,715,947
Grand Total				21,344,868	20,784,290	20,811,856

SOURCE: Michigan Department of Natural Resources, special release, and Michigan Tourist Council, special release.

a. Detour is administrated by Straits; Palms Book by Indian Lake; Leelanau by Traverse City; Duck Lake by Muskegon; and Sanilac by Port Crescent.

b. No camping permitted.

c. Under development.

n.a.: not available.

TABLE XI-5. VISITOR DAYS OF USE OF NATIONAL FORESTS LOCATED IN MICHIGAN AND THE UNITED STATES: 1968-1981

(In millions of visitor days)

Year	Michigan				United States total
	Huron-Manistee	Hiawatha	Ottawa	Total	
1968	1,538.8	1,352.9	777.6	3,669.3	156,655.3
1969	1,657.2	1,619.8	868.1	4,145.1	162,838.1
1970	1,664.0	1,587.6	991.2	4,242.8	172,554.5
1971	1,770.8	1,739.8	1,064.0	4,574.6	178,109.5
1972	1,901.3	1,704.1	1,117.0	4,722.4	183,958.3
1973	1,842.1	1,854.9	1,187.8	4,884.8	188,174.6
1974	1,955.6	1,821.9	1,240.5	5,018.0	192,915.8
1975	1,940.0	2,002.7	1,208.4	5,151.1	199,200.8
1976	2,154.8	2,030.3	1,289.6	5,474.7	199,928.1
1977	2,378.0	1,833.6	1,334.1	5,545.7	204,797.4
1978	2,390.2	1,749.2	1,363.4	5,502.8	218,496.3
1979	2,183.8	1,571.6	1,260.3	5,015.7	236,301.7
1980	2,652.7	1,683.3	1,150.8	5,486.8	233,549.3
1981	2,183.8	1,571.6	1,260.3	5,015.7	235,709.2

SOURCE: U.S. Forest Service, special release.

TABLE XI-6. VISITORS TO ISLE ROYALE NATIONAL PARK AND TO PICTURED ROCKS AND SLEEPING BEAR DUNES NATIONAL LAKESHORES: 1968-1981

Year	Isle Royale	Pictured Rocks[a]	Sleeping Bear Dunes[b]
1968	10,065	--	--
1969	10,403	--	--
1970	14,411	--	--
1971	15,868	--	--
1972	16,116	287,094[c]	--
1973	15,439	296,537	--
1974	13,934	298,856	--
1975	16,818	279,262	775,000
1976	16,000	317,000	800,000
1977	16,676	297,189	837,976
1978	16,415	289,902	759,000
1979	14,810	272,416	733,463
1980	14,996	313,040	689,274
1981	14,564	331,815	759,014

SOURCE: Isle Royale National Park, Pictured Rocks National Lakeshore, and Sleeping Bear Dunes National Lakeshore, special releases.

a. Records not available prior to 1972.
b. Records not available prior to 1975.
c. Eleven-month total, beginning with February.

TABLE XI-7. NUMBER OF RESIDENT AND NONRESIDENT HUNTING LICENSES ISSUED IN MICHIGAN: 1968-1981

	Small game		Deer-firearm		Deer-bow	
Year	Resident[a]	Nonresident	Resident[a]	Nonresident	Resident[a]	Nonresident
1968	575,013	5,047	609,120	14,360	59,039	4,061
1969	569,696	5,687	641,863	14,990	61,342	4,043
1970	581,855	6,202	616,173	12,729	58,234	3,584
1971	465,201	5,683	492,024	10,189	35,514	2,985
1972	445,589	6,396	455,304	9,108	30,400	2,576
1973	515,101	7,803	494,567	10,169	38,287	2,735
1974	564,476	8,609	551,928	11,820	46,269	2,851
1975	558,520	8,866	587,091	13,710	54,391	3,582
1976	503,165	7,601	535,550	13,781	57,184	4,287
1977	421,700	7,847	482,002	14,990	62,013	5,464
1978	353,073	7,059	522,520	16,388	--	6,793
1979	318,799	6,900	519,505	15,030	--	7,300
1980	378,365	5,571	651,333	10,597	152,521	4,039
1981	365,951	5,839	668,146	10,714	168,556	4,401

SOURCE: Michigan Department of Natural Resources, special release.
a. Includes senior resident.

TABLE XI-8. NUMBER OF RESIDENT AND NONRESIDENT FISHING LICENSES ISSUED IN MICHIGAN: 1968-1981

	Resident		Nonresident		
Year	Senior	Annual[a]	7-day	Annual	Trout stamp[b]
1968	85,998	801,214	51,778	126,458	294,000
1969	92,301	806,532	46,273	128,614	292,523
1970	92,932	807,703	50,121	133,196	303,774
1971	97,169	837,462	53,164	137,460	312,432
1972	99,540	811,393	34,977	127,218	308,630
1973	103,805	832,539	35,175	131,671	311,565
1974	91,938	871,557	33,832	131,516	324,865
1975	95,206	916,571	36,907	137,919	352,207
1976	95,331	817,088	--	106,028	278,130
1977	94,659	770,299	--	99,971	253,235
1978	95,469	738,324	--	94,089	239,601
1979	94,069	718,779	--	91,278	271,618
1980	98,943	712,813	--	114,522	236,386
1981	125,333	865,394	--	72,078	354,703

SOURCE: Michigan Department of Natural Resources, special release.
a. Includes 7-day licenses issued during 1968-1972.
b. Resident and nonresident.
n.a.: not applicable.

TABLE XI-9. NUMBER OF REPORTED FOREST FIRES IN MICHIGAN AND ACREAGE BURNED AS A RESULT: 1970-1981

Year	Lightning	Campfire	Tobacco smoking	Debris burning	Incendiary	Equipment use	All other	Total
				Number of fires				
1970	39	64	203	461	152	239	237	1,395
1971	25	79	212	347	91	293	163	1,210
1972	17	66	166	324	77	223	137	1,060
1973	7	47	142	295	83	139	119	832
1974	20	45	176	343	109	196	140	1,029
1975	40	77	204	225	79	42	186	853
1976	99	159	258	296	131	103	295	1,341
1977	72	122	223	329	169	155	363	1,433
1978	8	68	120	160	95	47	223	721
1979	7	44	67	113	73	52	116	472
1980	16	65	96	303	116	88	159	843
1981	14	64	108	224	132	87	195	824
				Acres burned				
1970	56	255	741	2,844	581	947	1,069	6,492
1971	60	449	1,344	1,630	831	993	287	5,597
1972	24	630	1,151	1,628	553	804	864	5,654
1973	7	160	615	1,069	322	241	250	2,664
1974	80	195	1,566	2,176	999	608	464	6,087
1975	143	342	1,061	1,467	4,788	275	8,715	16,775
1976	19,264	645	1,626	1,122	923	505	1,385	25,470
1977	805	710	1,396	3,911	1,563	2,074	1,650	12,109
1978	17	207	513	420	420	159	795	2,639
1979	15	113	152	410	1,049	391	169	2,299
1980	68	353	1,211	1,733	1,410	1,347	3,157	9,279
1981	102	258	404	2,821	2,620	410	1,892	7,607

SOURCE: Michigan Department of Natural Resources, Forest Management Division, special release.

TABLE XI-10. LAND AREA AND INLAND WATER AREA OF MICHIGAN COUNTIES, AS OF 1961

(In square miles)

County	Land	Water	County	Land	Water
Alcona	679.01	16.50	Lake	567.77	6.20
Alger	911.66	36.60	Lapeer	658.04	4.40
Allegan	832.05	11.20	Leelanau	341.39	25.00
Alpena	567.49	34.10	Lenawee	752.54	8.95
Antrim	480.17	44.50	Livingston	574.33	11.00
Arenac	367.40	4.41	Luce	904.46	22.60
Baraga	900.80	27.96	Mackinac	1,025.49	66.60
Barry	560.09	16.80	Macomb	482.42	.30
Bay	447.30	7.45	Manistee	542.86	15.00
Benzie	322.23	26.50	Marquette	1,821.42	51.88
Berrien	576.10	4.30	Mason	494.48	16.41
Branch	508.03	11.10	Mecosta	560.21	10.00
Calhoun	711.50	6.90	Menominee	1,045.28	6.10
Cass	496.22	14.40	Midland	525.04	3.10
Charlevoix	420.99	36.80	Missaukee	564.86	7.50
Cheboygan	720.19	77.30	Monroe	556.69	6.90
Chippewa	1,590.20	184.77	Montcalm	712.59	7.60
Clare	570.03	6.10	Montmorency	550.03	12.10
Clinton	573.07	1.64	Muskegon	507.04	19.67
Crawford	558.84	4.60	Newaygo	846.79	15.33
Delta	1,173.25	25.50	Oakland	874.88	32.50
Dickinson	770.27	7.15	Oceana	540.88	5.07
Eaton	579.29	.90	Ogemaw	569.60	5.50
Emmet	467.87	16.50	Ontonagon	1,310.83	15.30
Genesee	641.55	8.02	Osceola	568.70	4.00
Gladwin	505.34	10.66	Oscoda	568.00	3.61
Gogebic	1,105.15	39.00	Otsego	515.64	10.53
Grand Traverse	466.21	27.80	Ottawa	567.09	8.70
Gratiot	570.44	1.09	Presque Isle	655.57	32.70
Hillsdale	602.91	3.60	Roscommon	528.08	52.00
Houghton	1,013.60	30.00	Saginaw	815.28	.40
Huron	829.76	22.20	St. Clair	734.27	17.30
Ingham	559.71	1.10	St. Joseph	502.54	15.47
Ionia	577.03	3.30	Sanilac	964.40	.00
Iosco	545.97	19.40	Schoolcraft	1,173.39	47.70
Iron	1,163.08	48.00	Shiawassee	540.36	.30
Isabella	576.59	1.30	Tuscola	812.08	5.10
Jackson	704.68	18.80	Van Buren	611.40	12.50
Kalamazoo	561.97	18.30	Washtenaw	710.25	12.50
Kalkaska	562.96	7.40	Wayne	615.10	20.00
Kent	861.77	10.90	Wexford	565.65	10.80
Keweenaw	543.48	49.30	MICHIGAN	56,953.96	1,573.27

SOURCE: U.S. Bureau of the Census, special release.

XII. AGRICULTURE, FORESTRY, AND COMMERCIAL FISHERIES

Michigan Agricultural Statistics is an annual publication of the Michigan Department of Agriculture. Many of the data in this chapter are statistics that appeared in the latest edition.

The Agricultural Experiment Station and the Extension Service at Michigan State University also are sources of information. A list of the research reports issued by the Agricultural Experiment Station is available on request.

Income and employment statistics on agriculture in Michigan counties are prepared annually by the Bureau of Economic Analysis, U.S. Department of Commerce. These are the most comprehensive accounts of agricultural activity for individual counties. They form the basis for the evaluation of agriculture's importance in Table XII-23.

The U.S. Bureau of Commercial Fisheries issues Current Fishery Statistics as well as the annual Fishery Statistics of the United States.

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TABLE XII-1. NUMBER OF FARMS AND FARM ACREAGE IN MICHIGAN AND THE UNITED STATES, SELECTED YEARS: 1900-1982

	Old farm definition			New farm definition		
Year	Number of farms	Average size of farm (acres)	Total land in farms (000 acres)	Number of farms	Average size of farm (acres)	Total land in farms (000 acres)
			Michigan			
1900	203,261	86	17,562	n.a.	n.a.	n.a.
1910	206,960	92	18,941	n.a.	n.a.	n.a.
1920	196,447	97	19,033	n.a.	n.a.	n.a.
1930	179,000	101	18,000	n.a.	n.a.	n.a.
1940	190,000	97	18,400	n.a.	n.a.	n.a.
1950	161,000	111	17,900	n.a.	n.a.	n.a.
1960	118,000	131	15,400	n.a.	n.a.	n.a.
1970	84,000	151	12,700	n.a.	n.a.	n.a.
1975	76,000	155	11,800	70,000	164	11,500
1976	75,000	156	11,700	70,000	163	11,400
1978	72,000	158	11,400	66,000	173	11,400
1979	n.a.	n.a.	n.a.	66,000	173	11,400
1980	n.a.	n.a.	n.a.	66,000	173	11,400
1981	n.a.	n.a.	n.a.	66,000	174	11,500
1982	n.a.	n.a.	n.a.	65,000	177	11,500
			United States (Farms in thousands)			
1900	5,737	147	838,592	n.a.	n.a.	n.a.
1910	6,361	138	878,798	n.a.	n.a.	n.a.
1920	6,448	149	955,884	n.a.	n.a.	n.a.
1930	6,295	157	990,112	n.a.	n.a.	n.a.
1940	6,102	175	1,065,114	n.a.	n.a.	n.a.
1950	5,388	216	1,161,420	n.a.	n.a.	n.a.
1960	3,963	297	1,175,646	n.a.	n.a.	n.a.
1970	2,949	374	1,102,371	n.a.	n.a.	n.a.
1975	2,767	391	1,081,448	2,521	420	1,059,420
1976	2,738	394	1,078,263	2,497	422	1,054,075
1978	2,680	400	1,072,333	2,436	429	1,044,790
1979	n.a.	n.a.	n.a.	2,430	429	1,043,195
1980	n.a.	n.a.	n.a.	2,428	429	1,042,245
1981	n.a.	n.a.	n.a.	2,436	429	1,044,700
1982	n.a.	n.a.	n.a.	2,437	429	1,045,805

SOURCE: Michigan Agricultural Reporting Service, special release.

NOTE: The old farm definition included places of 10 or more acres that had annual sales of $50 or more, or that were smaller but had sales of $250 or more. The new farm definition includes places of any size that had annual sales of agricultural products of $1,000 or more.

n.a.: not available.

TABLE XII-2. GROSS FARM INCOME, PRODUCTION EXPENSES, AND REALIZED NET INCOME IN MICHIGAN AND U.S. AGRICULTURE: 1950-1981

	Total ($000,000)			Per farm ($)		
Year	Gross income	Production expenses	Net farm income	Gross income	Production expenses	Net farm income
			Michigan			
1950-1954[a]	833	508	325	5,507	3,342	2,165
1955-1959[a]	835	571	244	6,365	4,478	1,887
1960-1964[a]	919	663	256	8,386	6,053	2,333
1965-1969[a]	1,033	754	279	11,265	8,235	3,030
1970-1974[a]	1,411	1,028	383	17,396	12,661	4,735
1976	1,950	1,593	321	25,994	21,241	4,284
1977[b]	2,250	1,741	434	33,087	25,609	6,382
1978	2,398	1,916	499	36,325	29,033	7,556
1979	2,715	2,225	586	41,130	33,718	8,903
1980	3,139	2,646	461	47,557	n.a.	6,983
1981	3,231	2,893	486	48,966	n.a.	7,361
			United States			
1950-1954[a]	34,996	21,574	13,422	6,739	4,159	2,683
1955-1959[a]	35,571	24,309	11,262	8,168	5,538	2,637
1960-1964[a]	41,258	29,931	11,327	11,193	8,126	3,126
1965-1969[a]	50,791	37,996	12,795	16,073	12,044	4,162
1970-1974[a]	76,949	56,376	20,574	26,971	19,768	7,506
1975	96,938	75,863	24,475	35,037	27,420	8,846
1976	104,177	83,130	18,682	38,051	30,364	6,823
1977[b]	107,713	90,293	18,391	43,860	36,767	7,489
1978	126,972	101,087	26,458	52,118	41,493	10,860
1979	146,570	119,217	32,697	60,318	49,062	13,456
1980	n.a.	n.a.	n.a.	63,802	n.a.	8,289
1981	n.a.	n.a.	n.a.	66,189	n.a.	10,312

SOURCE: K.T. Wright and Daniel A. Dueweke, The Changing Scene in Michigan Agriculture, Extension Bulletin E-1253 (East Lansing: Cooperative Extension Service, Michigan State University, 1978), Table 7; Farm Income Statistics (Washington, D.C.: Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture, 1978), Tables 1H and 3H; and Michigan Agricultural Reporting Service, special release.

a. Five-year average.

b. Beginning with 1977, based on the 1974 Census of Agriculture definition of a farm with sales of $1,000 or more.

n.a.: not available

TABLE XII-3. PRODUCTION EXPENSES OF FARMS IN MICHIGAN, BY CATEGORY: 1950-1980

	Current operating expenses												
Year	Feed	Livestock	Fertilizer and lime	Seeds	Repairs & maintenance	Hired labor	Miscellaneous	Total	Depreciation	Taxes	Interest	Rent	Total
1950-1954[a]	59.8	13.8	25.9	14.4	89.2	58.3	48.6	310.0	92.0	15.6	7.6	15.0	440.2
1955 1959[a]	67.3	19.0	38.1	16.0	110.6	49.8	63.2	364.0	132.6	24.4	10.7	8.4	540.1
1960 1964[a]	75.4	20.6	36.7	14.1	118.3	59.9	85.2	410.1	151.3	36.7	16.9	6.5	621.6
1965 1969[a]	80.9	16.2	43.2	17.9	111.1	53.5	96.4	419.2	159.4	48.1	28.8	9.0	664.5
1972	93.9	24.0	71.9	31.2	114.1	105.0	167.0	607.1	211.3	69.4	47.4	9.1	944.3
1973	141.2	33.1	74.7	43.8	127.9	110.3	185.4	716.4	244.6	78.6	55.4	22.5	1117.5
1974	165.3	32.3	147.1	59.7	156.9	126.0	201.3	888.6	289.7	91.1	67.1	19.4	1355.9
1975	154.9	30.6	149.2	58.8	179.5	116.0	229.0	917.9	323.6	105.2	78.1	12.3	1437.0
1976	181.5	29.6	156.8	71.1	208.6	125.4	249.5	1022.5	357.1	121.3	86.9	5.3	1593.1
1977	177.9	28.6	171.8	74.2	253.6	135.6	281.3	1123.0	388.6	122.9	98.2	8.7	1741.4
1978	169.4	33.1	190.7	81.0	283.6	140.8	326.3	1224.9	433.4	133.2	115.2	9.5	1916.3
1979	186.6	54.0	210.7	93.9	335.6	163.5	401.3	1445.0	480.7	148.7	141.7	9.5	2225.4
1980	212.0	66.9	256.6	107.0	396.0	215.2	452.4	1705.9	557.1	161.9	170.5	16.4	2611.9

SOURCE: K.T. Wright and Daniel A. Dueweke, The Changing Scene in Michigan Agriculture, Extension Bulletin E-1253 (East Lansing: Cooperative Extension Service, Michigan State University, 1978), Table 4; and Michigan Agricultural Reporting Service, special release.

a. Five-year average.

TABLE XII-4. ACREAGE AND PRODUCTION OF MAJOR MICHIGAN CROPS: 1950-1981

Crop	1950-1954[a]	1955-1959[a]	1960-1964[a]	1965-1969[a]	1970-1974[a]	1977	1978	1979	1980	1981
					Harvested acreage (Thousands of acres)					
All corn	1,729	1,913	1,895	1,734	2,063	2,935	2,820	2,870	2,925	3,170
Winter wheat	1,269	1,037	1,019	839	604	825	410	735	800	830
Oats	1,331	1,056	745	519	376	340	410	310	335	340
Tame hay	2,383	2,026	1,791	1,549	1,320	1,300	1,430	1,330	1,310	1,270
Soybeans	121	221	300	481	569	770	900	1,010	950	970
Dry beans	382	504	567	600	577	480	520	460	570	590
Sugar beets	62	68	74	80	85	86	92	88	97	99
Potatoes	67	50	45	44	42	40	42	41	40	38
Vegetables	138[b]	124	113	102	108	[illegible]	117	117	106	102
Fruit	167[b]	160	152	152	157	128	119	115	115	116
All crops	8,011	7,449	6,870	6,235	6,062	6,866	6,811	7,163	7,317	7,597
					Production (Thousands of units)					
All corn (bu)[c]	62,227	82,662	92,302	93,193	124,393	211,650	194,400	237,500	247,000	273,600
Winter wheat (bu)	35,142	33,000	36,365	30,849	23,084	33,000	16,400	31,605	35,200	41,500
Oats (bu)	48,049	50,820	37,215	27,392	19,988	18,700	23,370	18,910	20,100	21,080
Tame hay (tons)	3,631	3,329	3,356	3,330	3,065	2,855	3,857	3,833	3,844	3,894
Soybeans (bu)	2,334	4,990	6,783	10,904	13,397	23,870	21,600	30,300	30,400	29,100
Dry beans (cwt)	3,571	5,014	7,437	6,775	6,231	5,664	5,980	6,440	7,752	7,198
Sugar beets (tons)	699	980	1,153	1,355	1,571	1,796	1,770	1,550	1,892	2,030
Potatoes (bu)	12,468	11,734	13,708	14,678	16,089	17,072	16,588	15,913	15,037	14,172
Fruit (ooo lb)	n.a.	n.a.	n.a.	n.a.	n.a.	959	1,383	1,068	1,332	1,017

SOURCE: K.T. Wright and Daniel A. Dueweke, The Changing Scene in Michigan Agriculture, Extension Bulletin E-1253 (East Lansing: Cooperative Extension Service, Michigan State University, 1978), Tables 1 and 2; and Michigan Agricultural Reporting Service, special release.

a. Five-year average.

b. Estimate.

c. Grain only, excludes

TABLE XII-5. MAJOR LIVESTOCK INVENTORY AND PRODUCTION OF MAJOR LIVESTOCK PRODUCTS IN MICHIGAN: 1950-1982

Livestock or product	1950-1954[a]	1955-1959[a]	1960-1964[a]	1965-1969[a]	1970-1974[a]	1978	1979	1980	1981	1982
					Inventory, 1 January (thousands)					
All cattle & calves										
Milk cows	930	831	698	568	435	404	402	400	390	396
Beef cows	63	97	119	141	192	196	138	140	140	214
Cattle on feed	100	104	148	185	226	200	180	165	160	135
Total	1,880	1,797	1,759	1,587	1,552	1,470	1,250	1,310	1,340	1,450
Hogs & pigs	812	739	809	652	756	640	925	1,040	830	690
Sheep & lambs	432	410	365	290	278	138	121	132	124	130
Chickens (all)	10,986	9,930	7,961	8,466	8,126	7,959	8,140	8,000	8,200	8,100
Turkeys (hens)	82	67	82	86	76	52	40	44	52	50
					Production (millions of pounds)					
Milk	5,409	5,272	5,485	4,897	4,670	4,793	4,830	4,970	5,103	n.a.
Cattle & calves	443	431	460	473	476	502	357	394	425	n.a.
Hogs	289	261	260	220	264	236	307	331	288	n.a.
Sheep & lambs	21	22	21	15	11	8	8	9	8	n.a.
Eggs (millions produced)	1,609	1,626	1,410	1,540	1,486	1,497	1,491	1,459	1,541	n.a.
Chickens (1,000 head raised)	16,623	11,014	6,067	5,638	5,800	5,600	5,000	5,250	5,650	n.a.
Turkeys (1,000 head raised)	1,049	1,162	1,241	1,158	1,040	1,210	1,200	1,450	1,550	n.a.
Commercial broilers 1,000 head raised)	3,485	4,350	2,732	1,200	697	1,190	2,570	1,552	1,130	n.a.

SOURCE: K.T. Wright and Daniel A. Dueweke, The Changing Scene in Michigan Agriculture, Extension Bulletin E-1253 (East Lansing: Cooperative Extension Service, Michigan State University, 1978), Tables 3 and 4; and Michigan Agricultural Reporting Service, special release.

a. Five-year average.

n.a.: not available.

TABLE XII-6. MICHIGAN CASH RECEIPTS FROM FARM MARKETINGS: 1973-1980

(In thousands of dollars)

Item	1973	1974	1975	1976	1977	1978	1979	1980
Livestock and products	709,317	687,857	732,935	812,249	831,355	984,560	1,003,837	1,118,819
Dairy	325,447	353,860	376,312	447,786	452,265	496,661	571,725	647,602
Cattle and calves	194,052	168,729	175,714	168,812	197,986	306,803	208,564	237,075
Hogs	97,474	86,762	101,511	102,205	91,094	87,278	124,490	135,148
Eggs	62,581	53,813	55,556	67,312	61,898	57,811	61,376	57,760
Sheep and lambs	4,613	4,819	3,376	2,874	3,889	5,320	4,114	5,438
All chickens	2,665	1,898	3,784	3,272	2,932	3,871	5,438	4,786
Wool	1,050	701	322	549	744	697	682	703
Other[a]	21,435	17,275	16,360	19,439	20,547	26,119	27,448	30,307
Crops	790,807	963,982	914,769	908,828	1,119,141	1,071,697	1,357,686	1,574,749
Field crops								
Corn	145,055	216,374	219,156	262,828	286,968	248,791	318,552	477,773
Dry edible beans	134,460	99,320	129,744	78,857	111,802	80,783	111,234	155,957
Soybeans	67,856	100,569	63,726	79,251	134,660	97,133	194,586	208,684
Sugarbeets	46,482	64,790	43,524	34,496	36,100	41,595	60,295	73,599
Wheat	71,093	95,236	113,701	81,360	82,324	50,355	102,468	120,212
Potatoes	41,498	48,274	34,142	36,975	40,961	37,269	67,729	50,127
Hay	15,059	18,629	30,154	24,849	26,160	32,403	23,267	21,369
Oats	8,949	15,411	16,644	18,800	16,247	15,204	16,635	19,258
Mint	911	1,111	1,281	1,186	1,304	1,310	1,475	1,498
Red clover seed	1,345	1,508	765	1,882	1,041	813	745	580
Rye	769	727	515	476	418	681	984	864
Barley	798	1,352	1,053	1,790	1,740	1,492	1,315	1,330
Vegetables	89,458	94,735	84,329	95,501	111,991	128,437	136,813	130,364
Other	8,503	8,389	8,641	12,146	17,794	17,568	13,341	23,543

TABLE XII-6. MICHIGAN CASH RECEIPTS FROM FARM MARKETINGS: 1973-1980 (cont.)

(In thousands of dollars)

Item	1973	1974	1975	1976	1977	1978	1979	1980
Fruit								
Apples	36,854	44,802	36,055	39,009	52,914	73,192	75,314	73,386
Blueberries[b]	n.a.	n.a.	10,880	15,450	8,378	17,820	16,164	14,104
Cherries	27,041	46,875	25,455	27,831	57,901	73,370	59,194	40,181
Grapes	4,574	8,688	7,170	2,179	7,072	15,000	12,810	12,443
Peaches	5,692	8,108	7,290	5,584	8,502	9,504	6,732	7,622
Strawberries	4,723	5,503	5,297	5,798	6,280	7,973	10,041	8,358
Pears	1,408	1,616	2,023	1,512	1,673	2,930	2,606	2,405
Plums and prunes	2,189	2,076	2,353	2,105	1,953	3,279	2,873	2,575
Other	15,301	12,976	688	15,805	8,872	777	971	1,030
Other products								
Forest and maple	10,204	11,303	8,927	12,002	12,657	14,768	16,475	17,720
Greenhouse, nursery	50,585	55,610	61,276	66,606	91,807	99,250	105,067	109,767
All commodities	1,500,124	1,651,839	1,657,704	1,721,077	1,950,496	2,056,257	2,361,523	2,693,568
Government payments	38,888	10,498	13,276	7,300	21,195	45,510	15,593	10,666
TOTAL	1,539,012	1,662,277	1,660,980	1,728,377	1,971,691	2,101,767	2,377,116	2,704,234

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1977 through 1980 (Lansing: annually), and special release (1979 selected updated data).

a. Turkey hatching eggs, other poultry, beeswax, honey, horses and mules, other livestock.
b. Prior to 1975, blueberries included in other.

TABLE XII-7. MICHIGAN INDEXES OF PRICES RECEIVED BY FARMERS, U.S. PRICES PAID BY FARMERS, AND RATIO: 1910-1981

Item	1910-1914	1935-1939	1947-1949	1970	1977	1978	1979	1980	1981
Livestock									
All livestock	19	23	55	65	100	116	133	137	138
Dairy products	16	19	45	60	100	109	125	136	143
Meat products	17	21	57	70	100	131	156	147	135
Poultry and eggs	49	55	113	73	100	101	106	102	120
Crops									
All crops	22	21	55	51	100	106	113	126	132
Cash field	25	25	65	51	100	107	114	131	160
Fruits	17	17	41	44	100	118	125	134	137
Vegetables	--	13	34	56	100	91	92	104	137
Feed crops	39	31	73	56	100	102	110	122	121
All products	20	23	55	58	100	111	123	131	135

SOURCE: Michigan Department of Agriculture, special release.

NOTE: Indexes are calculated using 1977 as the base year.

a. Ratio of Michigan index of prices received for all farm products to U.S. index of prices paid for commodities, services, interest, taxes, and wage rates.

n.a.: not available.

TABLE XII-8. PRICES RECEIVED BY MICHIGAN FARMERS FOR CROPS, LIVESTOCK, POULTRY, AND PRODUCTS: 1972-1981

Item	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Hogs ($ per cwt)	25.50	39.50	35.80	48.00	44.70	40.50	47.60	42.90	38.80	43.70
Beef cattle ($ per cwt)	30.50	40.20	36.30	33.50	33.00	32.80	44.20	58.20	55.90	49.50
Veal calves ($ per cwt)	49.70	62.40	45.00	30.40	35.40	38.80	61.60	86.60	82.50	65.20
Sheep ($ per cwt)	9.70	13.60	11.40	11.20	13.70	13.30	20.30	28.00	27.90	19.80
Lambs ($ per cwt)	29.50	36.60	38.60	43.80	47.80	51.00	62.10	66.60	63.20	51.90
Milk ($ per cwt wholesale)	6.17	7.20	8.22	8.55	9.85	9.65	10.50	12.00	13.20	13.80
Chickens (¢ per lb)	8.50	11.80	8.30	14.50	12.00	10.00	11.00	12.00	9.00	8.50
Eggs (¢ per doz)	26.30	49.60	48.40	45.30	53.40	49.60	46.50	50.00	48.00	54.00
Wool ($ per lb)	.29	.63	.47	.29	.51	.67	.67	.73	.74	.70
Corn, grain ($ per bu)	1.49	2.52	2.85	2.35	2.04	1.92	2.22	2.46	3.05	2.86
Wheat ($ per bu)	1.67	4.30	3.80	3.22	2.53	2.02	3.30	3.82	3.60	3.46
Oats ($ per bu)	.84	1.35	1.60	1.39	1.56	1.27	1.25	1.45	1.85	2.09
Soybeans ($ per bu)	4.60	5.73	6.40	4.78	7.22	5.54	6.81	6.13	7.47	6.72
Dry beans ($ per cwt)	9.70	27.30	16.00	25.90	16.10	18.30	14.80	18.50	27.80	29.63
All potatoes ($ per cwt)	3.66	6.13	4.15	5.56	4.17	4.14	4.57	4.44	6.65	9.23
All hay ($ per ton)	29.50	31.00	37.50	44.00	43.00	58.50	45.50	36.00	36.50	44.70

SOURCE: Michigan Department of Agriculture, special release.

NOTE: Marketing year, except 1980 which is calendar year.

TABLE XII-9. NUMBER OF WORKERS ON MICHIGAN FARMS: 1972-1981

(Annual averages in thousands of persons)

Workers	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Family	101	98	95	83	83	77	70	66	63	#
Hired	24	23	24	27	29	25	26	28	31	#
Total	125	121	119	110	112	102	96	94	94	#

SOURCE: Michigan Department of Agriculture, special release.

#. Estimate discontinued.

TABLE XII-10. FIRST FIVE RANKING COUNTIES IN MICHIGAN FOR SELECTED CROP PRODUCTION: 1981

Item	1	2	3	4	5
Corn, grain	Huron	Tuscola	Lenawee	Sanilac	Branch
Winter wheat	Huron	Lenawee	Tuscola	Sanilac	Saginaw
Oats	Sanilac	Huron	Shiawassee	Washtenaw	Tuscola
Soybeans	Saginaw	Lenawee	Monroe	Shiawassee	Gratiot
Dry beans	Huron	Tuscola	Gratiot	Saginaw	Bay
Sugar beets	Tuscola	Huron	Bay	Saginaw	Sanilac

SOURCE: Michigan Department of Agriculture, special release.

TABLE XII-11. MICHIGAN YIELDS PER ACRE, NINE LEADING CROPS: 1973-1981

Item	1973	1974	1975	1976	1977	1978	1979	1980	1981
Corn, grain (bu)	79.0	60.0	80.0	69.0	85.0	81.0	95.0	95.0	96.0
Winter wheat (bu)	35.0	40.0	38.0	38.0	40.0	40.0	43.0	44.0	50.0
Oats (bu)	50.0	55.0	56.0	51.0	55.0	57.0	61.0	60.0	62.0
Barley (bu)	39.0	49.0	47.0	46.0	52.0	47.0	47.0	53.0	52.0
Potatoes (cwt)	216	234	222	231	257	235	235	227	222
Soybeans (bu)	24.0	21.0	26.0	20.5	31.0	24.0	30.0	22.0	30.0
Dry beans (cwt)	9.8	12.5	9.1	10.0	11.8	11.5	14.0	13.6	12.2
Sugar beets (tons)	17.6	17.0	19.2	16.8	21.0	19.3	17.6	19.5	20.5
Hay, all (tons)	2.5	2.3	2.5	2.4	2.2	2.7	2.9	2.9	3.1

SOURCE: Michigan Department of Agriculture, special release.

TABLE XII-12. QUANTITY AND VALUE OF LIVESTOCK AND POULTRY ON FARMS, MICHIGAN AND THE UNITED STATES: 1 JANUARY 1978-1982

	Michigan			United States		
Species and year	Number (1,000)	Value per head or bird	Total value (1,000)	Number (1,000)	Value per head or bird	Total value (1,000)
All cattle and calves						
1978	1,470	325	[illegible]	[illegible]	[illegible].00	27,030,385
1979	1,250	50[illegible]	[illegible]	[illegible]	[illegible]00	44,697,773
1980	1,310	64[illegible]	[illegible]	[illegible].92	2[illegible].00	55,831,294
1981	1,340	660.[illegible]	[illegible]	[illegible]21	[illegible].00	54,292,044
1982	1,450	580.0[illegible]	[illegible]	[illegible]	[illegible].00	47,978,582
All hogs (including pigs)[a]						
1978	640	66.00	42,240	55,539	63.20	3,575,279
1979	925	84.00	68,040	60,100	83.30	5,004,269
1980	1,040	59.00	61,360	67,353	56.10	3,774,920
1981	830	79.50	65,985	64,512	74.70	4,820,793
1982	690	73.00	50,370	58,691	70.10	4,115,148
All sheep and lambs						
1978	138	41.50	5,727	12,348	51.50	636,088
1979	121	55.00	6,655	12,220	71.70	875,927
1980	132	68.00	8,976	12,687	78.20	992,127
1981	124	75.00	9,300	12,936	69.80	903,332
1982	130	64.00	8,320	13,116	56.90	746,520
All chickens[a]						
1978	7,959	1.35	10,745	386,518	1.69	651,851
1979	8,140	1.55	12,617	396,933	1.75	696,019
1980	8,000	1.45	11,600	400,585	1.81	726,365
1981	8,200	1.35	11,070	392,110	1.88	738,646
1982	8,100	1.50	12,150	383,220	1.89	724,714
Turkeys - breeder hens[a]						
1978	52	10.80	562	3,038	11.32	34,390
1979	40	16.00	640	3,370	12.53	42,222
1980	44	13.00	572	3,705	13.58	50,304
1981	52	18.00	936	3,749	14.11	52,887
1982	50	12.00	600	3,415	15.32	52,329
Total value - all species						
1978	--	--	537,024	--	--	31,927,993
1979	--	--	712,952	--	--	51,316,210
1980	--	--	920,908	--	--	61,375,010
1981	--	--	971,691	--	--	60,807,702
1982	--	--	912,440	--	--	53,617,293

SOURCE: Michigan Department of Agriculture special release.

a. 1 December of previous year.

TABLE XII-13. QUANTITY OF LIVESTOCK AND POULTRY ON MICHIGAN FARMS, BY CLASS: 1 JANUARY 1978-1982

(In 1,000 head)

Species and class	1978	1979	1980	1981	1982
Cattle and calves					
Classification by sex and weight					
Cows and heifers that have calved	600	540	540	530	610
Beef cows	196	138	140	140	214
Milk cows	404	402	400	390	396
Heifers, 500 pounds and over	269	223	257	260	254
For beef cow replacement	29	19	25	36	35
For milk cow replacement	184	149	193	174	179
Other heifers	56	55	39	50	40
Steers, 500 pounds plus	244	187	181	177	190
Bulls, 500 pounds plus	28	19	22	19	20
Calves, less than 500 pounds	329	281	310	354	376
All cattle and calves	1,470	1,250	1,310	1,340	1,450
Hogs[a]					
All hogs	640	925	1,040	830	690
Breeding hogs	101	158	161	120	105
Market hogs	539	767	879	710	585
Sheep and lambs					
Ewe lambs	13	14	16	15	16
Wether and ram lambs	3	3	3	4	4
Ewes, 1 year plus	88	75	82	80	83
Rams and wethers, 1 year plus	4	3	3	3	3
Total stock sheep	108	95	104	102	106
Sheep and lambs on feed	30	26	28	22	24
All sheep and lambs	138	121	132	124	130
Chickens[a]					
Pullets of laying age	3,333	3,500	3,850	3,860	3,800
Hens	2,967	2,850	2,400	2,540	2,500
Hens and pullets of laying age	6,300	6,350	6,250	6,400	6,300
Pullets, 3 months plus	915	840	825	950	820
Pullets, less than 3 months	703	900	885	800	940
Other chickens	41	50	40	50	40
All chickens	7,959	8,140	8,000	8,200	8,100
Turkeys					
Breeding hens	52	40	44	52	50

SOURCE: Michigan Department of Agriculture, Michigan Agricultural Statistics, 1980 (Lansing: 1980), pp. 48-54, and special release (1981 data).

[a] 1 December inventory of previous year.

TABLE XII-14. ACREAGE, YIELD, PRODUCTION, AND VALUE OF MICHIGAN FIELD CROPS: 1977-1981

		Acreage		Production		Price	
Crop	Year	Planted (1,000)	Harvested (1,000)	Per acre (1,000)	Total (1,000)	received per unit[a] (dollars)	Value of production ($1,000)
Corn, all (bu)	1977	3,000	n.a.	n.a.	n.a.	n.a.	n.a.
	1978	2,850	n.a.	n.a.	n.a.	n.a.	n.a.
	1979	2,900	n.a.	n.a.	n.a.	n.a.	n.a.
	1980	2,950	n.a.	n.a.	n.a.	n.a.	n.a.
	1981	3,200	n.a.	n.a.	n.a.	n.a.	n.a.
Corn, grain (bu)	1977	n.a.	2,490	85.0	211,650	1.92	406,368
	1978	n.a.	2,400	81.0	194,400	2.22	431,568
	1979	n.a.	2,500	95.0	237,500	2.46	584,250
	1980	n.a.	2,600	95.0	247,000	3.05	793,350
	1981	n.a.	2,850	96.0	273,600	2.35	642,960
Corn, silage (ton)	1977	n.a.	445	12.5	5,565	16.70	92,936
	1978	n.a.	420	12.5	5,250	16.30	85,575
	1979	n.a.	370	13.5	4,995	16.20	80,919
	1980	n.a.	325	13.5	4,388	19.20	84,250
	1981	n.a.	320	13.0	4,160	19.80	82,368
Wheat, winter (bu)	1977	870	825	40.0	33,000	2.02	66,660
	1978	430	410	40.0	16,400	3.30	54,120
	1979	750	735	43.0	31,605	3.82	120,731
	1980	820	800	44.0	35,200	3.60	126,720
	1981	840	830	50.0	41,500	3.55	147,325
Oats (bu)	1977	400	340	55.0	18,700	1.27	23,749
	1978	440	410	57.0	23,370	1.25	29,213
	1979	330	310	61.0	18,910	1.45	27,420
	1980	355	335	60.0	20,100	1.85	37,185
	1981	360	340	62.0	21,080	1.90	40,052
Barley (bu)	1977	24	22	52.0	1,144	2.53	2,894
	1978	23	22	47.0	1,034	2.60	2,688
	1979	21	20	47.0	940	2.65	2,491
	1980	23	21	53.0	1,113	3.75	4,174
	1981	27	26	52.0	1,352	3.10	4,191
Rye (bu)	1977	115	19	24.0	456	1.65	752
	1978	130	25	24.0	600	2.05	1,230
	1979	135	25	25.0	625	2.75	1,719
	1980	130	21	24.0	504	2.85	1,436
	1981	130	19	28.0	532	2.90	1,543
Soybeans (bu)	1977	780	770	31.0	23,870	5.54	132,240
	1978	910	900	24.0	21,600	6.81	147,096
	1979	1,020	1,010	30.0	30,300	6.13	185,739
	1980	960	950	32.0	30,400	7.47	227,088
	1981	980	970	30.0	29,100	6.35	184,785
Dry beans[b]	1977	550	480	1,180	5,664	18.30	103,651
	1978	530	520	1,150	5,980	14.80	88,504
	1979	470	460	1,400	6,440	18.50	119,140
	1980	590	570	1,360	7,752	27.80	215,506
	1981	650	590	1,220	7,198	26.50	190,747
Potatoes[b], all	1977	42.0	39.8	257	10,243	4.14	42,376
	1978	43.5	42.3	235	9,953	4.57	45,479
	1979	41.9	40.6	235	9,548	4.44	42,411
	1980	41.0	39.8	227	9,022	6.65	59,788
	1981	40.5	38.3	222	8,503	6.65	56,432

TABLE XII-14. ACREAGE, YIELD, PRODUCTION, AND VALUE OF MICHIGAN FIELD CROPS: 1977-1981 (cont.)

Crop	Year	Acreage Planted (1,000)	 Harvested (1,000)	Production Per acre (1,000)	 Total (1,000)	Price received per unit[a] (dollars)	Value of production ($1,000)
Potatoes, summer (cwt)	1977	8.0	7.8	185	1,443	4.18	6,032
	1978	8.5	8.3	175	1,453	4.80	6,974
	1979	8.9	8.6	180	1,548	4.40	6,811
	1980	8.5	8.3	195	1,619	6.75	10,928
	1981	8.5	8.3	175	1,453	n.a.	n.a.
Potatoes, fall (cwt)	1977	34.0	32.0	275	8,800	4.13	36,344
	1978	35.0	34.0	250	8,500	4.53	38,505
	1979	33.0	32.0	250	8,000	4.45	35,600
	1980	32.5	31.5	235	7,403	6.60	48,860
	1981	32.0	30.0	235	7,050	n.a.	n.a.
Hay, all (ton)	1977	n.a.	1,300	2.20	2,855	58.50	167,018
	1978	n.a.	1,430	2.70	3,857	45.50	175,494
	1979	n.a.	1,330	2.88	3,833	36.00	137,988
	1980	n.a.	1,310	2.93	3,844	36.50	140,306
	1981	n.a.	1,270	3.07	3,894	49.50	192,753
Hay, alfalfa (ton)	1977	n.a.	1,000	2.45	2,450	n.a.	n.a.
	1978	n.a.	1,140	2.90	3,306	n.a.	n.a.
	1979	n.a.	1,040	3.10	3,224	n.a.	n.a.
	1980	n.a.	1,020	3.20	3,264	n.a.	n.a.
	1981	n.a.	1,000	3.30	3,300	n.a.	n.a.
Red clover	1977	n.a.	25	85	2,125	57.00	1,211
	1978	n.a.	25	85	2,125	49.00	1,041
	1979	n.a.	26	95	2,470	49.00	1,210
	1981	n.a.	16	95	1,520	52.50	798
Popcorn[d] (lb)	1977	2.0	1.9	3,750	7,125	8.55	609
	1978	2.2	2.1	3,450	7,250	8.20	595
	1979	5.5	5.4	3,400	18,360	9.00	1,652
	1980	7.0	6.9	2,750	18,980	9.60	1,822
	1981	7.0	6.9	3,500	24,150	12.80	3,091
Maple syrup (gal)	1977	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	1978	n.a.	n.a.	n.a.	80	14.00	1,120
	1979	n.a.	n.a.	n.a.	85	16.00	1,360
	1980	n.a.	n.a.	n.a.	83	17.10	1,419
	1981	n.a.	n.a.	n.a.	91	19.40	1,765
Spearmint, for oil (lb)	1977	n.a.	3.3	24	79	16.50	1,304
	1978	n.a.	3.6	29	104	12.60	1,310
	1979	n.a.	3.8	31	118	13.00	1,534
	1980	n.a.	3.7	29	107	13.70	1,466
	1981	n.a.	3.8	31	118	15.50	1,829
Sugarbeets (ton)	1977	92.3	85.5	21.0	1,796	20.10	36,100
	1978	93.0	91.5	19.3	1,770	23.50	41,595
	1979	93.0	88.0	17.6	1,550	38.90	60,295
	1980	99.0	97.0	19.5	1,892	40.70	77,004
	1981	102.0	99.0	20.5	2,030	n.a.	n.a.

SOURCE: Michigan Department of Agriculture, special release.

a. Marketing year

b. Production per acre in pounds.

c. Clean seed basis, and price per cwt.

d. Shelled corn basis, price per cwt.

n.a.: Not available.

TABLE XII-15. NUMBER OF TREES OF BEARING AGE, ACREAGE IN, AND PRODUCTION OF FRUIT CROPS IN MICHIGAN: 1977-1981 (cont.)

Fruit	Year	Trees of bearing age Number (1,000)	Acres (1,000)	Production Utilized Tons	Total Tons	Price received (dollars per Ton)	Value of production ($1,000)
Grapes[b]	1977	7,000	14.0	33,000	33,000	216	7,128
	1978	7,000	14.0	67,500	67,500	223	15,053
	1979	7,000	14.0	58,500	58,500	237	13,865
	1980	7,000	14.0	49,500	49,500	240	11,880
	1981	7,000	14.0	53,000	53,000	271	14,363
Pears	1977	450	4.8	8,000	8,000	221	1,768
	1978	290	3.0	10,000	10,000	201	2,010
	1979	270	2.8	9,000	9,000	198	1,782
	1980	270	2.8	10,000	10,000	223	2,230
	1981	260	2.7	9,000	9,000	224	2,016
Prunes & Plums	1977	500	5.4	14,000	14,000	141	1,974
	1978	450	4.8	24,000	24,000	138	3,312
	1979	410	4.4	14,000	14,000	207	2,898
	1980	410	4.4	12,500	12,500	208	2,600
	1981	410	4.4	16,000	16,000	140	2,240

SOURCE: Michigan Department of Agriculture, special release.

a. Bushes of bearing age.

b. Number of vines of bearing age.

n.a.: not available.

TABLE XII-16. ACREAGE, PRODUCTION, AND VALUE OF MICHIGAN VEGETABLES FOR FRESH MARKET: 1977-1981

Crop and season	Year	Acres		Production		Price received (per cwt)	Value of production[a] ($1,000)
		Planted	Harvested	Per acre (cwt)	Total (1,000 cwt)		
Asparagus	1977	19,500[c]	19,000	11	209	44.60	9,314
	1978	20,000[c]	19,500	13	254	56.70	14,400
	1979	20,000[c]	19,500	13	254	61.20	15,538
	1980	20,000[c]	19,500	12	234	51.30	12,014
	1981	20,000[c]	19,000	9	171	62.50	10,690
Carrots	1977	6,300	5,600	232	1,301	9.83	12,793
	1978	6,500	6,100	265	1,614	9.69	15,632
	1979	6,700	6,600	260	1,713	7.82	13,403
	1980	6,800	5,600	239	1,340	11.70	15,704
	1981	7,000	5,600	235	1,316	9.43	12,408
Cauliflower	1977	1,100	1,000	50	50	16.60	831
	1978	1,200	1,100	50	55	28.50	1,567
	1979	1,200	1,100	70	77	27.70	2,132
	1980	1,200	1,000	50	50	36.50	1,824
	1981	1,200	1,000	62	62	37.90	2,350
Celery	1977	2,500	2,400	448	1,074	8.24	8,854
	1978	2,600	2,300	407	936	14.10	13,197
	1979	2,700	2,600	443	1,153	9.52	10,982
	1980	3,200	3,100	447	1,387	9.29	12,890
	1981	3,400	3,200	450	1,440	10.90	15,675
Peppers	1977	1,900	1,800	75	135	16.00	2,163
	1978	2,000	1,900	78	148	18.60	2,759
	1979	2,000	1,900	77	146	24.20	3,536
	1980	1,800	1,700	74	126	25.50	3,207
	1981	1,900	1,800	75	135	24.70	3,328
Strawberries	1977	2,900	2,800	70	196	32.00	6,280
	1978	2,900	2,800	75	210	38.00	7,973
	1979	2,900	2,800	70	196	51.20	10,041
	1980	2,800	2,700	65	176	47.50	8,358
	1981	2,800	2,700	65	176	47.10	8,296

TABLE XII-16. ACREAGE, PRODUCTION, AND VALUE OF MICHIGAN VEGETABLES FOR FRESH MARKET: 1977-1981 (cont.)

Crop and season	Year	Acres		Production		Price received (per cwt)	Value of production[a] ($1,000)
		Planted	Harvested	Per acre (cwt)	Total (1,000 cwt)		
Beans, snap	1977	3,000	2,700	34	92	20.20	1,858
	1978	3,000	2,600	30	78	23.10	1,802
	1979	3,100	2,900	28	81	25.60	2,074
	1980	3,100	2,900	32	93	26.20	2,437
	1981	3,000	2,600	32	83	29.40	2,440
Cabbage	1977	3,600	3,200	164	526	6.28	3,302
	1978	3,200	3,000	177	532	8.95	4,763
	1979	3,300	3,000	163	489	6.56	3,207
	1980	3,300	3,000	153	460	9.35	4,300
	1981	3,200	2,900	160	464	6.96	3,229
Cantaloups	1977	1,900	1,700	105	179	11.10	1,987
	1978	1,700	1,600	110	176	12.20	2,147
	1979	1,700	1,600	115	184	16.20	2,981
	1980	1,700	1,500	120	180	19.50	3,510
	1981	1,700	1,600	115	184	16.80	3,091
Corn, sweet	1977	12,500	12,300	63	775	7.07	5,479
	1978	12,000	11,700	60	702	9.28	6,515
	1979	11,700	11,500	58	667	8.28	5,523
	1980	11,700	11,500	67	771	8.92	6,877
	1981	12,000	11,500	61	702	9.84	6,908
Cucumbers	1977	2,200	2,100	120	252	9.28	2,339
	1978	2,200	2,100	105	221	12.10	2,674
	1979	2,000	1,900	115	219	14.80	3,241
	1980	2,000	1,900	110	209	11.30	2,362
	1981	2,000	1,900	125	238	13.80	3,284
Lettuce	1977	1,500	1,300	200	260	9.60	2,496
	1978	1,500	1,300	220	286	13.70	3,918
	1979	1,500	1,400	200	280	22.00	6,160
	1980	1,600	1,200	210	252	19.30	4,864
	1981	1,400	1,200	215	258	28.00	7,224

TABLE XII-17. MICHIGAN STRAWBERRIES FOR FRESH MARKET AND PROCESSING, PRODUCTION, PRICE, AND VALUE: 1977-1981

Year	Fresh market			Processing		
	Production (1,000 cwt)	Price received per cwt	Value of production ($1,000)	Production (1,000 cwt)	Price received per cwt	Value of production ($1,000)
1977	140	33.00	4,620	2,800	593.00	1,660
1978	140	42.00	5,880	3,500	598.00	2,093
1979	143	56.10	8,022	2,650	762.00	2,019
1980	137	51.10	7,001	1,950	696.00	1,357
1981	137	49.20	6,740	1,950	798.00	1,556

SOURCE: Michigan Department of Agriculture, special release.

TABLE XII-18. MICHIGAN VEGETABLES FOR FRESH MARKET AND PROCESSING, PRODUCTION, PRICE, AND VALUE: 1977-1981

Crop	Year	Fresh market			Processing		
		Production (1,000 cwt)	Price received per cwt	Value of production ($1,000)	Production (tons)	Price received per ton	Value of production ($1,000)
Asparagus	1977	32	51.00	1,632	8,850	868.00	7,682
	1978	44	60.00	2,640	10,500	1,120.00	11,760
	1979	52	78.40	4,077	10,080	1,137.00	11,461
	1980	70	65.00	4,550	8,220	908.00	7,464
	1981	53	72.00	3,816	5,900	1,165.00	6,874
Carrots	1977	1,041	11.60	12,126	13,000	51.30	667
	1978	1,088	13.20	14,341	26,300	49.10	1,291
	1979	1,129	10.70	12,104	29,200	44.50	1,299
	1980	880	16.30	14,371	22,980	58.00	1,333
	1981	830	13.50	11,205	24,310	49.50	1,203

SOURCE: Michigan Department of Agriculture, special release.

NOTE: Disposition data not published for Cauliflower, Celery and Peppers.

TABLE XII-19. MICHIGAN VEGETABLES FOR PROCESSING, ACREAGE, YIELD, PRODUCTION, AND VALUE: 1977-1981

Crop and season	Year	Acres planted	Acres harvested	Production Per acre tons	Production Total tons	Price received per ton	Value of production ($1,000)
Snap beans							
	1977	17,500	16,800	2.46	41,300	125.00	5,163
	1978	18,000	16,400	2.10	34,450	148.00	5,099
	1979	17,600	17,300	2.08	35,980	162.00	5,829
	1980	14,600	13,700	2.80	38,360	156.00	5,984
	1981	14,600	14,300	2.53	36,180	160.00	5,789
Cucumbers for pickles	1977	25,200	24,500	4.65	114,000	109.00	12,426
	1978	27,500	26,500	4.75	126,000	120.00	15,120
	1979	26,500	25,500	4.62	117,810	132.00	15,551
	1980	19,000	18,900	5.56	105,080	125.00	13,135
	1981	16,300	15,500	6.50	100,750	135.00	13,601
Tomatoes							
	1977	4,200	4,100	15.49	63,500	65.80	4,178
	1978	4,600	4,500	18.04	81,200	67.30	5,465
	1979	5,700	5,600	18.11	101,420	68.30	6,927
	1980	6,100	6,000	12.28	73,680	72.90	5,371
	1981	6,400	6,200	19.08	118,300	86.00	10,174

SOURCE: Michigan Department of Agriculture, special release.

NOTE: Processing vegetables estimated but not published to avoid disclosure of individual operations include: Beets, Cabbage for Kraut, Sweet Corn and Green Pears.

TABLE XII-20. ONION PRODUCTION AND UTILIZATION IN MICHIGAN: 1977-1981

(1,000 cwt)

Year	Sales Before Jan. 1	Sales After Jan. 1	Sales Total	Shrinkage Before Jan. 1	Shrinkage After Jan. 1	Total production	Total stocks Jan. 1[a]	Stocks as percentage of total production
1977	1,150	670	1,820	347	105	2,272	775	34.1
1978	1,240	1,010	2,250	296	140	2,686	1,150	42.8
1979	1,290	950	2,240	271	175	2,686	1,125	41.9
1980	870	530	1,400	280	120	1,800	650	36.1
1981	1,240	850	2,090	256	100	2,446	950	38.8

SOURCE: Michigan Department of Agriculture, special release.

a. Stocks for the following year.

TABLE XII-21. COUNTY ESTIMATES OF MAJOR FIELD CROP PRODUCTION IN MICHIGAN: 1981[p]

County or district	Crop							
	Oats (bu)	Barley (bu)	Dry beans (cwt)	Sugarbeets[a] (tons)	Corn (bu)	Wheat (bu)	Soybeans (bu)	Potatoes (cwt)
Alger	17,000	27,000	--	--	--	--	--	--
Baraga	26,000	6,200	--	--	--	4,300	--	--
Chippewa	275,000	23,000	--	--	--	18,100	--	--
Delta	220,000	98,600	--	--	93,700	4,200	--	195,000
Dickinson	37,000	32,000	--	--	28,200	--	--	377,000
Gogebic	7,000	--	--	--	--	--	--	--
Houghton	75,000	--	--	--	12,400	--	--	98,000
Iron	60,000	4,000	--	--	--	6,000	--	87,800
Keweenaw	--	--	--	--	--	--	--	--
Luce	10,000	--	--	--	--	--	--	--
Mackinac	96,000	20,700	--	--	12,700	3,700	--	--
Marquette	35,000	26,000	--	--	--	--	--	78,200
Menominee	290,000	160,000	--	--	664,000	11,700	--	--
Ontonagon	70,000	8,600	--	--	--	3,000	--	--
Schoolcraft	18,000	26,700	--	--	--	3,200	--	63,800
Other[b]	--	--	--	--	--	--	--	123,200
Upper Peninsula (1)	1,236,000	441,800	27,100	--	858,000	54,200	5,000	1,023,000
Antrim	56,000	--	--	--	357,000	40,000	--	310,500
Benzie	2,500	--	--	--	77,000	3,300	--	--
Charlevoix	34,000	13,500	--	--	255,000	6,400	--	--
Emmet	55,000	14,800	--	--	67,000	9,900	--	98,000
Grand Traverse	47,000	--	--	--	557,000	48,400	--	--
Kalkaska	12,000	--	--	--	194,000	19,500	--	116,000
Leelanau	42,000	--	--	--	179,000	17,600	--	--
Manistee	12,500	--	--	--	104,000	16,200	--	110,000
Missaukee	222,000	--	--	--	722,000	38,800	--	--
Wexford	42,000	--	--	--	425,000	35,600	--	--
Other[b]	--	--	--	--	--	--	--	59,800
Northwest (2)	525,000	51,900	38,000	--	2,937,000	235,700	16,500	694,300

TABLE XII-21. COUNTY ESTIMATES OF MAJOR FIELD CROP PRODUCTION IN MICHIGAN: 1981^{p} (cont.)

County or district	Crop							
	Oats (bu)	Barley (bu)	Dry beans (cwt)	Sugarbeets[a] (tons)	Corn (bu)	Wheat (bu)	Soybeans (bu)	Potatoes (cwt)
Alcona	76,000	10,700	--	--	187,000	63,300	--	--
Alpena	390,000	19,500	--	--	441,000	202,000	--	55,200
Cheboygan	104,000	20,500	--	--	108,000	26,800	--	--
Crawford	6,000	--	--	--	--	--	--	--
Iosco	116,000	--	--	--	780,000	100,000	--	--
Montmorency	69,000	24,000	--	--	115,000	32,800	--	--
Ogemaw	230,000	15,500	--	--	831,500	86,700	--	--
Oscoda	12,000	--	--	--	64,000	5,800	--	--
Otsego	119,000	17,000	--	--	91,000	31,200	--	155,000
Presque Isle	416,000	15,000	--	--	93,000	63,300	--	390,000
Roscommon	6,000	--	--	--	--	4,400	--	--
Other[a]	--	--	--	--	--	--	--	21,500
Northeast (3)	1,544,000	129,200	106,600	--	2,713,000	616,300	32,000	621,700
Lake	28,000	--	--	--	66,000	20,400	--	--
Mason	149,000	--	--	--	997,000	213,000	--	--
Muskegon	85,000	--	--	--	1,307,000	99,700	--	--
Newaygo	142,000	--	--	--	1,684,000	103,000	--	--
Oceana	33,000	--	--	--	511,000	115,000	--	--
West Central (4)	437,000	15,200	8,000	--	4,565,000	551,100	20,000	52,800
Clare	102,000	19,000	--	--	651,000	85,700	8,800	--
Gladwin	174,000	21,000	57,000	10,200	1,092,000	184,000	46,000	--
Gratiot	570,000	--	898,000	112,500	9,184,000	1,340,000	1,640,000	99,000
Isabella	470,000	49,500	264,000	--	548,000	689,000	277,000	51,700
Mecosta	149,000	8,900	34,500	--	1,853,000	229,000	8,300	211,000
Midland	109,000	--	306,000	41,000	2,310,000	347,000	392,000	--
Montcalm	459,000	14,700	386,000	--	6,587,000	1,160,000	262,000	2,305,000
Osceola	263,000	7,500	--	--	567,000	66,000	5,900	--
Other[b]	--	--	--	--	--	--	--	75,000
Central (5)	2,296,000	121,300	1,950,000	165,300	27,725,000	4,100,700	2,640,000	2,741,700

TABLE XII-21. COUNTY ESTIMATES OF MAJOR FIELD CROP PRODUCTION IN MICHIGAN: 1981[p] (cont.)

County or district	Crop Oats (bu)	Barley (bu)	Dry beans (cwt)	Sugarbeets[a] (tons)	Corn (bu)	Wheat (bu)	Soybeans (bu)	Potatoes (cwt)
Genesee	525,000	--	20,600	--	5,030,000	786,000	1,037,000	156,000
Lapeer	630,000	49,400	84,000	--	7,585,000	988,000	250,000	86,000
Lenawee	440,000	--	--	36,700	12,971,000	2,926,000	2,835,000	140,000
Livingston	313,000	--	4,400	--	4,714,000	422,000	60,000	--
Macomb	186,000	--	13,600	--	2,041,000	268,000	603,000	75,000
Monroe	198,000	8,300	--	9,200	7,436,000	1,615,000	2,340,000	290,000
Oakland	104,000	--	--	--	1,408,000	180,000	14,000	--
St. Clair	417,000	--	--	13,000	4,779,000	658,000	1,080,000	--
Washtenaw	790,000	7,700	35,600	--	6,332,000	996,000	450,000	157,000
Wayne	16,000	--	--	--	560,000	112,000	115,000	--
Other[b]	--	--	--	--	--	--	--	19,300
Southeast (9)	3,619,000	82,500	159,100	63,500	52,856,000	8,951,000	8,784,000	923,300
State	21,080,000	1,352,000	7,198,000	2,030,000	273,600,000	41,500,000	29,100,000	8,503,000

SOURCE: Michigan Department of Agriculture, special release.

a. Counties with less than 1,000 acres not published due to change in data collection methods.

b. For potatoes, figure includes counties or districts where no data is given; for all of the other crops, it is not applicable.

p. Preliminary.

TABLE XII-22. MICHIGAN LIVESTOCK INVENTORY, BY DISTRICT AND COUNTY: 1 JANUARY 1982

District or county	All hogs and pigs	Hens and pullets of laying age	All cattle and calves	Milk cows	Beef cows	All sheep and lambs
Alger	--	1,500	3,800	800	1,000	350
Baraga	--	--	2,300	600	800	--
Chippewa	200	70,000	10,500	2,700	2,400	1,200
Delta	600	2,000	11,500	2,700	4,000	350
Dickinson	150	1,000	3,700	1,000	900	--
Gogebic	--	--	1,400	200	600	--
Houghton	--	10,000	3,900	1,300	800	200
Iron	--	2,100	2,600	300	1,300	800
Keweenaw	--	--	--	--	--	--
Luce	100	7,000	1,500	--	400	--
Mackinac	--	1,000	4,300	1,100	900	50
Marquette	150	1,000	2,500	700	600	50
Menominee	600	20,800	23,500	8,500	2,800	150
Ontonagon	--	--	5,000	800	2,200	350
Schoolcraft	100	--	3,000	300	1,300	--
Upper Peninsula (1)	2,200	117,000	71,700	21,000	20,000	3,500
Antrim	500	41,500	8,500	1,700	1,800	200
Benzie	600	--	1,700	100	600	150
Charlevoix	300	25,000	6,900	1,500	1,500	200
Emmet	100	1,000	7,400	1,200	2,400	100
Grand Traverse	1,200	17,000	6,000	1,100	1,200	50
Kalkaska	1,400	3,000	1,600	500	300	50
Leelanau	700	8,000	6,800	800	800	100
Manistee	400	3,000	3,300	300	1,600	300
Missaukee	2,300	60,000	22,500	8,100	700	150
Wexford	1,000	3,000	4,800	1,500	700	150
Northwest (2)	8,500	162,000	69,500	16,800	14,000	2,100

TABLE XII-22. MICHIGAN LIVESTOCK INVENTORY, BY DISTRICT AND COUNTY: 1 JANUARY 1982 (cont.)

District or county	All hogs and pigs	Hens and pullets of laying age	All cattle and calves	Milk cows	Beef cows	All sheep and lambs
Alcona	1,000	29,000	7,400	1,100	3,700	800
Alpena	1,400	22,000	10,500	2,800	2,700	400
Cheboygan	500	1,400	6,400	1,300	2,600	500
Crawford	--	--	100	--	--	--
Iosco	2,500	1,000	10,000	1,200	4,000	400
Montmorency	--	--	3,500	1,400	800	400
Ogemaw	300	1,400	14,000	4,200	1,800	600
Oscoda	100	1,000	3,200	900	400	400
Otsego	--	--	3,500	600	1,500	50
Presque Isle	300	3,500	12,000	2,500	4,600	50
Roscommon	--	--	400	--	400	--
Northeast (3)	6,300	62,000	71,000	16,000	22,500	3,600
Lake	100	2,500	2,300	500	800	150
Mason	600	20,000	12,000	3,300	1,500	1,000
Muskegon	1,800	20,000	14,000	4,200	1,200	550
Newaygo	4,000	160,000	21,500	7,900	2,400	2,900
Oceana	2,800	50,500	13,700	2,800	2,600	600
West Central (4)	9,300	253,000	63,500	18,700	8,500	5,200
Clare	5,500	1,500	13,000	2,700	3,300	1,600
Gladwin	1,500	3,000	11,000	1,800	3,700	1,600
Gratiot	14,000	200,000	32,000	7,200	2,900	1,700
Isabella	13,500	75,000	38,000	10,800	3,300	500
Mecosta	2,000	47,500	17,500	5,000	3,200	700
Midland	3,000	2,000	8,000	800	1,400	400
Montcalm	6,000	7,500	24,500	9,700	2,200	900
Osceola	3,500	20,000	22,500	7,500	4,000	900
Central (5)	49,000	424,000	166,500	45,500	24,000	8,300

TABLE XII-15. NUMBER OF TREES OF BEARING AGE, ACREAGE IN, AND PRODUCTION OF FRUIT CROPS IN MICHIGAN: 1977-1981

		Trees of bearing age		Production		Price	
Fruit	Year	Number (1,000)	Acres (1,000)	Utilized (million lbs.)	Total (million lbs.)	received (dollars per cwt.)	Value of production ($1,000)
Apples	1977	2,900	46.1	570	570	7.90	45,030
	1978	2,800	43.3	920	890	7.60	67,640
	1979	2,700	40.5	680	680	7.80	53,040
	1980	2,750	41.0	900	900	6.10	52,800
	1981	2,750	41.0	640	640	8.80	56,320
Cherries, tart	1977	2,750	29.3	162	162	29.50	47,790
	1978	2,600	27.7	128	128	44.40	56,832
	1979	2,650	28.2	100	100	48.50	48,500
	1980	2,700	29.4	150	149	20.40	30,396
	1981	2,800	30.0	88	88	46.40	40,832
Cherries, sweet	1977	900	10.9	50	50	20.45	10,225
	1978	850	10.2	75	75	22.90	17,175
	1979	870	9.6	54	54	20.35	10,989
	1980	800	9.3	58	58	17.70	10,266
	1981	800	9.3	46	46	18.75	8,625
Blueberries[a]	1977	--	8.0	11.8	11.8	71.00	8,378
	1978	--	9.0	27.0	27.0	66.00	17,820
	1979	--	9.5	36.0	36.0	44.90	16,164
	1980	--	9.4	41.0	41.0	40.00	16,400
	1981	--	9.8	52.0	52.0	51.10	26,572
Peaches	1977	1,000	9.9	55	55	15.60	8,580
	1978	700	6.9	60	60	16.00	9,600
	1979	600	5.8	35	35	19.40	6,790
	1980	500	5.0	40	40	19.20	7,680
	1981	500	5.0	35	35	19.20	6,720

TABLE XII-16. ACREAGE, PRODUCTION, AND VALUE OF MICHIGAN VEGETABLES FOR FRESH MARKET: 1977-1981 (cont.)

Crop and season	Year	Acres		Production		Price received (per cwt)	Value of production[a] ($1,000)
		Planted	Harvested	Per acre (cwt)	Total (1,000 cwt)		
Onions[a]	1977	8,100	7,700	295	2,272	6.30	11,466
	1978	8,200	7,900	340	2,686	5.77	12,983
	1979	8,000	7,900	340	2,686	4.69	10,506
	1980	7,500	7,200	250	1,800	13.20	18,480
	1981	7,500	7,300	335	2,446	11.70	23,810
Tomatoes	1977	4,100	3,900	100	390	22.90	8,931
	1978	3,900	3,600	105	378	18.70	7,069
	1979	3,600	3,400	120	408	25.10	10,241
	1980	3,700	3,400	110	374	24.50	9,163
	1981	3,600	3,400	115	391	24.50	9,580

SOURCE: Michigan Department of Agriculture special release.

a. For Onions-- value of sales.

b. Includes processing.

c. Bearing acres only.

TABLE XII-21. COUNTY ESTIMATES OF MAJOR FIELD CROP PRODUCTION IN MICHIGAN: 1981[p] (cont.)

County or district	Crop[a]							
	Oats (bu)	Barley (bu)	Dry beans (cwt)	Sugarbeets (tons)	Corn (bu)	Wheat (bu)	Soybeans (bu)	Potatoes (cwt)
Arenac	215,000	--	161,000	44,000	2,184,000	269,000	139,000	--
Bay	82,000	--	635,000	368,000	4,157,000	670,000	457,000	--
Huron	1,219,000	107,800	1,173,000	437,000	14,215,000	301,600	101,000	--
Saginaw	361,000	29,500	667,000	313,500	7,940,000	1,934,000	3,829,500	--
Sanilac	2,043,000	96,000	395,000	170,000	11,875,000	2,633,000	950,000	--
Tuscola	681,000	152,000	936,000	463,000	13,123,000	2,783,000	453,000	--
East Central (6)	4,601,000	396,200	3,967,000	1,795,500	53,494,000	11,305,000	5,929,500	1,453,000
Allegan	359,000	--	--	--	8,160,000	431,000	120,000	312,000
Berrien	139,000	--	2,400	--	4,324,000	364,000	626,000	--
Cass	168,000	8,700	--	--	7,174,000	483,000	671,000	--
Kalamazoo	283,000	--	1,000	--	6,582,000	942,000	612,000	--
Kent	546,000	--	18,800	--	5,745,000	574,000	60,000	137,000
Ottawa	345,000	3,000	--	--	5,046,000	270,000	35,000	97,000
Van Buren	120,000	9,800	--	--	4,742,000	229,000	276,000	--
Other[b]	--	--	--	--	--	--	--	116,400
Southwest (7)	1,960,000	44,900	27,000	--	41,773,000	3,293,000	2,400,000	662,400
Barry	313,000	5,600	26,000	--	3,908,000	735,000	200,000	--
Branch	298,000	--	--	--	11,648,000	920,000	1,089,000	--
Calhoun	639,000	--	3,400	--	8,736,000	1,102,000	505,000	66,000
Clinton	604,000	8,100	168,000	--	6,546,000	1,682,000	1,370,000	--
Eaton	337,000	--	333,000	--	6,265,000	1,423,000	634,000	74,000
Hillsdale	315,000	--	--	--	9,552,000	848,000	806,000	--
Ingham	314,000	--	41,700	--	8,343,000	1,052,000	729,000	--
Ionia	596,000	29,000	261,000	--	6,560,000	1,738,000	685,000	--
Jackson	353,000	--	5,700	--	8,873,000	680,000	150,000	--
St. Joseph	196,000	--	2,900	--	11,120,000	920,000	1,110,000	--
Shiawassee	897,000	10,500	73,000	--	5,008,000	1,293,000	2,072,000	31,000
Other[b]	--	--	--	--	--	--	--	159,800
South Central (8)	4,862,000	69,000	915,200	5,700	86,659,000	12,393,000	9,273,000	330,800

TABLE XII-22. MICHIGAN LIVESTOCK INVENTORY, BY DISTRICT AND COUNTY: 1 JANUARY 1982 (cont.)

District or county	All hogs and pigs	Hens and pullets of laying age	All cattle and calves	Milk cows	Beef cows	All sheep and lambs
Arenac	3,500	10,000	11,000	3,400	900	100
Bay	1,800	9,000	5,800	1,600	800	100
Huron	18,500	950 000	85,000	19,300	6,200	500
Saginaw	6,800	37,000	18,500	5,400	1,800	2,000
Sanilac	7,400	20,000	81,700	30,500	4,400	1,200
Tuscola	17,000	425,000	28,000	7,800	2,900	800
East Central (6)	55,000	1,426,000	230,000	68,000	17,000	4,700
Allegan	50,000	880,000	52,500	15,900	4,800	2,500
Berrien	20,000	150,000	9,700	2,400	2,500	400
Cass	127,000	10,000	18,000	3,100	6,100	2,500
Kalamazoo	22,000	90,000	22,000	3,800	2,900	2,600
Kent	10,000	133,000	43,300	13,700	6,800	1,200
Ottawa	42,000	975,000	43,800	14,200	5,500	700
Van Buren	24,000	135,000	15,700	2,900	2,900	400
Southwest (7)	295,000	2,373,000	205,000	56,000	31,500	10,300
Barry	8,000	85,000	31,000	8,800	4,800	2,900
Branch	28,000	20,000	26,500	6,000	3,600	4,600
Calhoun	25,000	100,000	35,000	7,300	6,600	4,000
Clinton	16,000	30,000	43,000	14,500	2,800	4,900
Eaton	12,000	35,000	24,500	5,800	6,300	5,600
Hillsdale	28,000	90,000	35,700	11,000	4,600	4,600
Ingham	20,000	53,000	33,000	10,500	4,000	4,200
Ionia	19,000	500,000	43,500	14,000	5,200	2,400
Jackson	8,000	15,000	40,500	8,400	8,100	8,600
St. Joseph	29,000	95,000	21,500	4,700	3,400	2,800
Shiawassee	4,000	55,000	30,800	11,000	2,600	2,200
South Central (8)	197,000	1,078,000	365,000	102,000	52,000	46,800

TABLE XII-22. MICHIGAN LIVESTOCK INVENTORY, BY DISTRICT AND COUNTY: 1 JANUARY 1982 (cont.)

District or county	All hogs and pigs	Hens and pullets of laying age	All cattle and calves	Milk cows	Beef cows	All sheep and lambs
Genesee	4,000	40,000	18,500	3,500	3,100	1,400
Lapeer	7,500	8,000	37,500	10,500	3,700	1,600
Lenawee	27,000	45,500	35,500	8,400	2,500	7,100
Livingston	3,500	6,500	23,200	7,400	2,900	3,200
Macomb	2,000	15,000	11,000	3,300	1,700	700
Monroe	9,000	100,000	10,200	1,500	400	1,300
Oakland	1,500	20,000	7,000	1,400	2,000	600
St. Clair	3,000	95,000	24,700	7,200	4,200	500
Washtenaw	9,500	30,000	31,700	8,600	3,700	29,000
Wayne	700	45,000	700	200	300	100
Southeast (9)	67,700	405,000	200,000	52,000	24,500	45,500
Michigan Total	690,000	6,300,000	1,450,000	396,000	214,000	130,000

SOURCE: Michigan Department of Agriculture, special release.

TABLE XII-23. RANKING OF MICHIGAN COUNTIES ACCORDING TO LABOR AND PROPRIETORS' EARNINGS IN AGRICULTURE AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1981

County	Percentage 1971	Percentage 1981	County	Percentage 1971	Percentage 1981
Missaukee	28.60	23.95	Monroe	3.18	1.90
Sanilac	19.32	19.61	Iron	1.26	1.81
Huron	19.22	18.53	Clare	4.24	1.74
Oceana	23.51	15.32	Berrien	2.43	1.57
Tuscola	11.45	15.22	Dickinson	1.10	1.55
Gratiot	9.96	13.56	Calhoun	1.42	1.50
Arenac	14.47	12.94	Cheboygan	1.66	1.36
Clinton	16.74	11.81	Grand Traverse	2.72	1.34
Cass	8.11	11.65	Delta	1.83	1.29
Leelanau	18.52	9.00	Houghton	1.09	1.23
Ionia	11.58	8.03	Kalkaska	5.13	1.20
Oscoda	6.72	7.90	Wexford	2.04	1.17
Gladwin	6.36	7.84	Emmet	1.43	1.15
Hillsdale	8.82	7.82	Charlevoix	1.90	1.14
Montcalm	5.53	6.97	Baraga	1.33	1.12
Newaygo	12.35	6.93	Midland	0.70	1.07
Allegan	11.01	6.91	Otsego	1.27	1.07
Lapeer	11.13	6.86	Chippewa	0.83	0.98
Van Buren	9.27	6.45	Mackinac	1.72	0.93
Barry	7.07	6.26	St. Clair	2.22	0.91
St. Joseph	3.68	6.04	Kalamazoo	0.87	0.88
Branch	7.15	5.95	Gogebic	0.80	0.76
Eaton	7.26	5.94	Jackson	1.33	0.61
Ogemaw	8.98	5.41	Kent	0.78	0.56
Osceola	7.96	5.12	Schoolcraft	0.51	0.55
Lake	3.33	5.07	Iosco	1.09	0.50
Mecosta	6.60	4.56	Washtenaw	0.71	0.50
Benzie	5.57	4.42	Muskegon	0.78	0.50
Presque Isle	4.48	4.32	Luce	0.84	0.44
Menominee	5.91	4.09	Ingham	0.66	0.42
Montmorency	4.63	4.05	Ontonagon	0.72	0.37
Isabella	6.94	4.00	Alpena	1.14	0.35
Antrim	6.14	3.59	Macomb	0.35	0.27
Shiawassee	4.88	3.48	Genesee	0.26	0.14
Alcona	7.48	3.41	Marquette	0.10	0.14
Bay	1.82	3.17	Roscommon	0.00	0.13
Manistee	3.42	2.89	Oakland	0.13	0.05
Lenawee	4.66	2.75	Wayne	0.02	0.02
Mason	3.90	2.73	Crawford	0.00	0.00
Saginaw	1.29	2.37	Keweenaw	0.00	0.00
Livingston	4.70	2.21			
Alger	2.14	2.16	Michigan	1.14	1.00
Ottawa	3.69	1.93	United States	2.77	1.99

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE XII-24. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN AGRICULTURE: 1980-198

County	Percentage change 1971-1981	Percentage change 1980-1981	County	Percentage change 1971-1981	Percentage change 1980-1981
Branch	102	23	Muskegon	46	-2
Newaygo	19	18	Oceana	61	-3
Monroe	60	17	Iosco	-11	-3
St. Joseph	287	16	Sanilac	106	-3
Lenawee	15	15	Montcalm	210	-3
Hillsdale	109	15	Roscommon	(X)	-3
Shiawassee	45	13	Eaton	101	-3
Kalkaska	74	12	Mason	32	-3
Ottawa	51	9	Van Buren	66	-4
Baraga	70	8	Marquette	288	-4
Livingston	45	8	Oscoda	152	-5
Lake	132	8	Gratiot	222	-5
Alger	130	8	Saginaw	328	-5
St. Clair	-1	6	Chippewa	90	-6
Barry	100	6	Otsego	214	-7
Ingham	67	6	Dickinson	263	-7
Osceola	61	6	Charlevoix	67	-7
Houghton	171	5	Delta	82	-7
Schoolcraft	161	5	Wayne	51	-8
Ogemaw	81	4	Arenac	131	-8
Mackinac	35	4	Alcona	7	-8
Calhoun	129	4	Manistee	99	-9
Missaukee	120	4	Gogebic	79	-9
Wexford	61	3	Alpena	-30	-10
Jackson	3	3	Grand Traverse	57	-10
Clinton	88	3	Mecosta	84	-10
Kalamazoo	167	2	Isabella	74	-10
Washtenaw	104	2	Benzie	88	-11
Allegan	62	2	Midland	289	-11
Cass	235	2	Iron	240	-12
Macomb	79	1	Tuscola	236	-13
Emmet	94	1	Luce	35	-13
Gladwin	221	1	Presque Isle	134	-13
Ionia	83	0	Bay	300	-16
Clare	1	0	Oakland	24	-17
Cheboygan	105	0	Huron	132	-18
Montmorency	59	0	Antrim	42	-20
Genesee	30	0	Leelanau	2	-22
Kent	91	0	Crawford	(X)	(X)
Menominee	83	0	Keweenaw	(X)	(X)
Lapeer	51	-1			
Ontonagon	-1	-2	Michigan	102	-2
Berrien	28	-2	United States	85	19

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(X) Earnings not reported.

TABLE XII-25. MICHIGAN COUNTIES RANKED ACCORDING TO 1981 CASH RECEIPTS FROM TOTAL MARKETINGS: 1980 AND 1981

(Millions of dollars)

County	1980	1981	County	1980	1981
Huron	159	153	Mason	18	19
Tuscola	125	124	Missaukee	19	19
Sanilac	120	121	Menominee	18	18
Saginaw	122	121	Osceola	17	17
Allegan	106	109	Wayne	15	16
Lenawee	101	99	Antrim	13	14
Ottawa	91	96	Presque Isle	11	11
Gratiot	96	94	Gladwin	11	10
Kent	80	84	Manistee	9	10
Berrien	75	84	Ogemaw	10	10
Van Buren	71	76	Clare	10	9
Bay	71	71	Delta	9	9
Clinton	71	70	Alpena	9	9
Ionia	68	68	Dickinson	7	8
Lapeer	65	65	Benzie	6	7
Calhoun	67	65	Chippewa	6	6
Ingham	63	64	Charlevoix	5	6
Cass	64	63	Iosco	6	5
Hillsdale	63	62	Wexford	5	5
Montcalm	61	62	Emmet	5	5
Monroe	62	62	Houghton	4	4
St. Joseph	59	58	Cheboygan	4	4
Washtenaw	58	57	Alcona	4	4
Kalamazoo	58	56	Oscoda	3	3
Branch	57	55	Montmorency	3	3
Shiawassee	53	53	Otsego	3	3
Eaton	53	52	Iron	2	2
Isabella	53	51	Marquette	2	2
Jackson	49	48	Mackinac	2	2
St. Clair	48	47	Kalkaska	2	2
Macomb	37	38	Ontonagon	2	2
Oceana	33	37	Alger	2	2
Barry	37	37	Lake	2	2
Newaygo	33	36	Gogebic	1	1
Genesee	37	36	Baraga	1	1
Livingston	30	29	Schoolcraft	1	1
Mecosta	27	26	Luce	1	1
Muskegon	24	26	Roscommon	0	0
Midland	25	24	Crawford	(X)	(X)
Leelanau	21	23	Keweenaw	(X)	(X)
Oakland	22	22			
Grand Traverse	19	22	Michigan	2,907	2,921
Arenac	20	20	United States	147,590	150,896

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(X) Keweenaw and Crawford counties have no cash receipts reported.

TABLE XII-26. MICHIGAN COUNTIES RANKED ACCORDING TO 1981 CASH RECEIPTS FROM CROPS MARKETINGS: 1980 AND 1981

(Millions of dollars)

County	1980	1981	County	1980	1981
Saginaw	104	103	Mason	9	10
Tuscola	96	96	Livingston	10	10
Huron	88	87	Manistee	8	9
Berrien	63	71	Antrim	8	9
Bay	67	67	Presque Isle	6	6
Gratiot	67	67	Benzie	5	5
Lenawee	59	59	Gladwin	5	5
Van Buren	51	57	Dickinson	5	5
Sanilac	51	51	Missaukee	3	3
Monroe	50	51	Menominee	3	3
Kent	45	49	Osceola	3	3
Allegan	45	48	Delta	3	3
Ottawa	41	45	Emmet	2	2
Montcalm	41	42	Ogemaw	2	2
Calhoun	34	34	Clare	2	2
Eaton	33	33	Alpena	2	2
St. Joseph	32	32	Cheboygan	2	2
Lapeer	30	32	Iron	2	2
Ionia	31	32	Houghton	2	2
Kalamazoo	30	31	Iosco	2	2
Ingham	30	30	Wexford	1	2
Branch	30	30	Kalkaska	1	1
Oceana	25	30	Chippewa	1	1
Clinton	29	29	Marquette	1	1
Shiawassee	29	29	Otsego	1	1
Hillsdale	29	29	Charlevoix	1	1
Macomb	27	28	Alcona	1	1
Washtenaw	27	27	Montmorency	1	1
Cass	25	26	Lake	1	1
Jackson	21	21	Ontonagon	0	0
St. Clair	20	20	Luce	0	0
Grand Traverse	16	19	Schoolcraft	0	0
Midland	19	19	Alger	0	0
Newaygo	16	19	Oscoda	0	0
Leelanau	16	19	Mackinac	0	0
Isabella	19	19	Roscommon	0	0
Genesee	17	17	Baraga	0	0
Muskegon	14	16	Gogebic	0	0
Oakland	15	15	Crawford	(X)	(X)
Barry	15	15	Keweenaw	(X)	(X)
Wayne	14	15			
Arenac	12	12	Michigan	1,627	1,678
Mecosta	11	12	United States	71,921	74,910

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(X) Keweenaw and Crawford counties have no cash receipts reported.

TABLE XII-27. MICHIGAN COUNTIES RANKED ACCORDING TO 1981 CASH RECEIPTS FROM LIVESTOCK AND LIVESTOCK PRODUCTS MARKETINGS: 1980 AND 1981

(Millions of dollars)

County	1980	1981	County	1980	1981
Sanilac	70	71	Clare	8	7
Huron	71	66	Oakland	7	7
Allegan	61	60	Alpena	7	7
Ottawa	49	51	Delta	6	6
Clinton	42	41	Midland	6	6
Lenawee	42	39	Gladwin	6	6
Cass	39	37	Presque Isle	5	5
Ionia	37	37	Antrim	5	5
Kent	35	35	Bay	5	5
Lapeer	35	33	Chippewa	5	5
Ingham	34	33	Charlevoix	4	4
Hillsdale	34	33	Leelanau	5	4
Isabella	35	32	Iosco	4	4
Calhoun	33	31	Wexford	4	4
Washtenaw	31	30	Grand Traverse	3	3
Tuscola	29	29	Emmet	3	3
Gratiot	29	27	Oscoda	3	3
Jackson	29	27	Dickinson	3	3
St. Clair	28	26	Alcona	3	3
St. Joseph	27	26	Houghton	3	3
Kalamazoo	27	25	Montmorency	3	3
Branch	27	25	Cheboygan	2	2
Shiawassee	24	24	Mackinac	2	2
Barry	22	22	Ontonagon	2	2
Montcalm	20	20	Alger	2	2
Van Buren	21	19	Otsego	2	2
Livingston	20	19	Wayne	1	1
Eaton	20	19	Benzie	1	1
Genesee	20	18	Manistee	1	1
Saginaw	19	18	Lake	1	1
Newaygo	17	17	Gogebic	1	1
Missaukee	16	16	Marquette	1	1
Menominee	15	16	Baraga	1	1
Mecosta	15	15	Iron	1	1
Osceola	14	14	Kalkaska	1	1
Berrien	13	12	Schoolcraft	0	0
Monroe	12	11	Luce	0	0
Muskegon	10	10	Roscommon	0	0
Macomb	10	10	Crawford	(X)	(X)
Mason	9	9	Keweenaw	(X)	(X)
Arenac	8	8			
Ogemaw	8	8	Michigan	1,280	1,243
Oceana	8	8	United States	75,670	75,986

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(X) Keweenaw and Crawford counties have no cash receipts reported.

TABLE XII-28. PULPWOOD PRODUCTION IN MICHIGAN, BY SPECIES: 1974-1981

(Thousand standard cords)

Item[a]	1974	1975	1976	1977	1978	1979	1980	1981
Aspen	756	446	536	608	672	709	705	652
Birch	85	36	69	67	93	109	103	105
Maple[b]	n.a.	n.a.	n.a.	n.a.	n.a.	250	271	238
Oak[b]	n.a.	n.a.	n.a.	n.a.	n.a.	106	103	113
Balsam Fir	74	74	75	94	87	85	109	104
Cedar[b]	n.a.	n.a.	n.a.	n.a.	n.a.	8	7	11
Hemlock	53	50	79	62	48	45	58	39
Pine[c]	262	235	281	262	280	350	267	237
Spruce	40	45	32	47	43	39	58	45
Tamarack	2	2	1	3	1	2	6	6
Misc. hardwoods	228	221	333	352	407	100	127	121
Residue and chips	196	182	163	164	134	152	114	165
TOTAL	1,910	1,291	1,406	1,661	1,766	1,955	1,929	1,838

SOURCE: Michigan Department of Natural Resources, special release.

a. Wood received by companies which manufacture paper, paperboard, hardboard, insulation board, and particleboard.
b. Previously included in miscellaneous hardwoods.
c. Includes white, red, and jack pine.
n.a.: Not available.

TABLE XII-29. SELECTED FISHERY STATISTICS FOR MICHIGAN: 1966-1981

Year	Commercial landings[a]		Number of plants involved[b]	Value of mfd. fishery products ($000)
	Quantity (000 lbs)	Value ($000)		
1966	21,284	2,568	62	2,275
1967	29,221	2,846	64	2,357
1968	23,953	2,832	59	2,344
1969	21,948	2,723	56	4,578
1970	21,169	2,875	52	n.a.
1971	19,137	2,671	49	4,419
1972	14,213	2,985	47	8,801
1973	16,869	3,688	47	5,300
1974	15,454	3,926	47	n.a.
1975	12,256	3,653	46	n.a.
1976	14,438	4,145	44	n.a.
1977	11,626	3,275	n.a.	n.a.
1978	11,158	3,529	13	n.a.
1979	14,169	6,000[c]	n.a.	n.a.
1980	11,178	7,021	n.a.	n.a.
1981	14,262	7,500	120	n.a.

SOURCE: National Oceanic and Atmospheric Administration, *Fishery Statistics of the United States*, 1959-1973 (Washington, D.C.: annually), Statistical Digest no. 67, p. 306 (1973), and *Fisheries of the United States, 1977* (Washington, D.C.: 1978), Current Fishery Statistics, 7500, pp. 4, 80 (1978); and Michigan Department of Natural Resources, special release.

a. Amount paid to fishermen.
b. Wholesale and mfg. firms only.
C. Estimated
n.a.: not available.

TABLE XII-30. PULPWOOD PRODUCTION IN MICHIGAN'S UPPER AND LOWER PENINSULAS, BY SPECIES: 1979 AND 1980

	1979			1980		
Species[a]	Upper peninsula	Lower peninsula	State total	Upper peninsula	Lower peninsula	State total
Aspen	329,614	379,786	709,400	325,039	379,929	704,968
Balsam fir	84,139	1,150	85,289	103,447	5,817	109,264
Birch	87,056	21,513	108,569	68,901	34,590	103,491
Maple	175,182	74,861	250,043	179,476	91,854	271,330
Oak	2,862	102,731	105,593	6,553	95,978	102,531
Other hardwoods	78,528	21,786	100,314	101,416	25,965	127,381
Cedar	8,175	--	8,175	7,302	--	7,302
Hemlock	44,906	--	44,906	58,154	49	58,203
Pine	166,885	183,110	349,995	122,871	144,622	267,493
Spruce	37,841	845	38,686	56,210	1,454	57,664
Tamarack	2,371	--	2,371	5,758	--	5,758
TOTAL ROUNDWOOD	1,017,559	785,782	1,803,341	1,035,127	780,258	1,815,385
Residues[b] used as pulpwood:						
Softwood	8,636	2,367	11,003	6,352	1,863	8,215
Hardwood	56,620	84,136	140,756	24,869	81,014	105,883
Total residues	65,256	86,503	151,759	31,221	82,877	114,098
TOTAL ALL PULPWOOD	1,082,815	872,285	1,955,100	1,066,348	863,135	1,929,483

SOURCE: Michigan Department of Natural Resources, special release.

a. Wood received by companies which manufacture paper, paperboard, hardboard, insulation board, and particleboard.

b. Slabs, edgings, veneer cores, and so forth.

XIII. MINING

Each establishment is classified on the basis of its major economic activity. Those primarily engaged in mining are tabulated in the Census of Mineral Industries, where they are further classified on the basis of the principal mineral produced or, if there is no production, on the basis of the principal mineral for which exploration or development is in progress. Mineral processing, not in conjunction with extraction, is classified in manufacturing. A major difference between census statistics and those published by the U.S. Bureau of Mines and the Geological Survey Division of the Michigan Department of Natural Resources is the exclusion of cement manufacturing in the former and its inclusion in the latter. Another difference stems from the treatment of government-owned operations, such as gravel pits mined by county road crews. Census statistics would exclude those establishments whereas the Bureau of Mines and the Geological Survey Division would not. For the most part, the Geological Survey Division and Bureau of Mines are interested in reporting mineral production, irrespective of mine ownership. Census statistics focus on the economic nature of establishments.

Companies with operations at more than one location must report separately for each establishment; the tabulations are based on these reports. Establishments not engaged in mineral extraction are classified in another industry. For example, the Michigan oil wells of an integrated petroleum company would be reported as a mineral establishment, but the refinery would be a manufacturing establishment, and company-operated retail or wholesale outlets for petroleum products would be classified in retail or wholesale trade. A mining establishment generally represents a unit operation even though there may be several pits, shafts, or wells. The operations of natural gas plants are included in mining inasmuch as these engage in separating hydrocarbons for use or further processing elsewhere. Establishments without paid employees and with shipments or expenditures totaling less than $500 were included.

The Bureau of Mines, U.S. Department of Interior, annually publishes Mineral Yearbook. A chapter entitled "The Mineral Industry of Michigan" is prepared in cooperation with the Geological Survey Division, Michigan Department of Natural Resources. The Geological Survey Division issues occasional releases dealing with Michigan's mineral industries. It also publishes Michigan's Oil and Gas Fields and a directory, Michigan Mineral Producers.

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TABLE XIII-1. AVERAGE WAGE AND SALARY EMPLOYMENT AND WEEKLY HOURS AND EARNINGS OF PRODUCTION WORKERS IN MICHIGAN AND THE UNITED STATES MINING ESTABLISHMENTS: 1956-1981

Year	MICHIGAN Employment (000)	MICHIGAN WEEKLY Hours Metallic	MICHIGAN WEEKLY Hours Nonmetallic	MICHIGAN WEEKLY Earnings Metallic	MICHIGAN WEEKLY Earnings Nonmetallic	MICHIGAN Hourly Earnings Metallic	MICHIGAN Hourly Earnings Nomentallic	UNITED STATES[a] Employment (000)	UNITED STATES[a] WEEKLY Hours Metallic	UNITED STATES[a] WEEKLY Hours Nonmetallic	UNITED STATES[a] WEEKLY Earnings Metallic	UNITED STATES[a] WEEKLY Earnings Nonmetallic	UNITED STATES[a] Hourly Earnings Metallic	UNITED STATES[a] Hourly Earnings Nonmetallic
1956	16.5	42.3	48.7	102.58	113.57	2.43	2.33	822	42.1	44.4	95.57	83.47	2.27	1.88
1957	16.8	40.2	47.7	105.48	115.91	2.62	2.43	828	40.7	43.7	97.27	85.65	2.39	1.96
1958	14.5	36.8	42.4	98.88	105.58	2.69	2.49	751	38.6	43.3	94.96	88.33	2.46	2.04
1959	13.8	42.5	48.0	121.17	127.63	2.85	2.66	732	40.3	44.4	102.77	94.13	2.55	2.12
1960	15.5	40.3	41.6	116.27	111.24	2.89	2.67	712	41.8	43.7	111.19	96.58	2.66	2.21
1961	13.4	40.4	49.7	115.62	139.21	2.86	2.80	672	41.4	43.9	113.44	100.09	2.74	2.28
1962	13.1	40.6	56.9	118.23	164.95	2.91	2.90	650	41.5	44.3	117.45	105.43	2.83	2.38
1963	12.9	44.1	53.1	128.11	160.04	2.91	3.01	635	41.2	44.6	118.66	108.38	2.88	2.43
1964	13.0	42.3	44.8	129.65	133.77	3.07	2.99	634	41.4	45.1	122.54	111.85	2.96	2.48
1965	13.4	41.3	45.4	130.30	139.70	3.16	3.08	632	41.6	45.7	127.30	117.45	3.06	2.57
1966	13.5	43.2	45.5	137.68	140.31	3.19	3.08	627	42.2	45.7	133.77	123.39	3.17	2.70
1967	12.8	45.1	46.9	146.08	126.54	3.24	2.70	613	42.1	45.2	136.40	128.82	3.24	2.85
1968	12.6	42.2	44.5	145.29	129.14	3.44	2.90	606	43.3	44.9	148.09	136.50	3.42	3.04
1969	12.2	43.7	44.6	162.52	161.05	3.72	3.61	619	43.1	45.6	156.88	149.11	3.64	3.27
1970	11.8	43.6	44.1	166.99	167.84	3.83	3.81	623	43.1	44.7	167.23	155.11	3.88	3.47
1971	11.1	42.5	44.5	173.91	184.94	4.09	4.16	609	42.8	44.9	176.34	166.13	4.12	3.70
1972	12.0	43.1	40.9	197.21	186.80	4.58	4.56	628	41.4	44.7	188.78	176.57	4.56	3.95
1973	12.9	42.6	44.0	208.83	216.70	4.90	4.93	642	41.7	45.5	201.83	192.01	4.84	4.22
1974	13.4	43.7	43.7	244.55	235.93	5.60	5.38	697	41.4	45.0	225.22	202.50	5.44	4.50
1975	13.8	40.2	42.5	268.74	275.06	6.69	6.47	752	40.7	43.5	249.49	215.33	6.13	4.95
1976	13.2	42.4	44.2	288.75	286.02	6.82	6.46	779	41.0	44.2	277.16	236.91	6.76	5.36
1977	12.1	42.2	43.3	307.51	300.37	7.29	6.94	813	40.8	44.6	297.02	259.13	7.28	5.81
1978	13.3	41.8	44.3	351.71	344.30	8.41	7.77	851	41.3	44.8	339.90	283.58	8.23	6.33
1979	13.2	41.9	43.0	394.36	370.06	9.41	8.61	958	41.2	45.0	381.92	310.50	9.27	6.90
1980	12.5	40.8	42.2	430.80	389.63	10.56	9.23	1,027	40.5	43.6	415.53	327.87	10.26	7.52
1981	12.1	40.0	44.4	451.11	437.92	11.29	9.87	1,132	40.5	43.0	467.78	356.47	11.55	8.29

SOURCE: Michigan Employment Security Commission special release, and Bureau of Labor Statistics, Employment and Earnings, (Washington, D.C.: Monthly), April 1982, Tables B-1 and B-20.

a. Nonmetallic figures for the U.S. does not include "Fuel."

TABLE XIII-2. SELECTED DATA FOR MINERAL INDUSTRIES IN MICHIGAN AND THE UNITED STATES: 1954, 1958, 1963, 1967, 1972, AND 1977

Year	Establishments Total (Number)		All employees[a] Number (0,000)		All employees[a] Payroll ($1,000,000)		Value added in Mining ($1,000,000)	
	Mich.	U.S.	Mich.	U.S.	Mich.	U.S.	Mich.	U.S.
1954	567	37,641	16.4	787.1	76.3	3,394.8	149.1	11,558.7[d]
1958	539	36,392	14.3	733.9	73.2	3,749.0	158.0	13,385.2
1963	691[b]	38,651[c]	12.2	615.6	75.2	3,742.5	223.1	15,910.0
1967	459[b]	28,579[c]	12.2	567.3	88.0	4,186.8	289.9	19,330.2
1972	409[b]	25,269[c]	11.4	595.1	119.9	6,225.5	306.3	26,470.6
1977	499[b]	31,359[c]	11.3	798.8	203.3	13,166.8	938.9	68,013.1

SOURCE: Bureau of the Census, 1977 Census of Mineral Industries, Geographic Area Series (Washington, D.C.: March 1981), MIC77-A-3, Table 1 and general summary.

a. For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for hours worked. No data was obtained on other employees at such operations; hence, the same employment and payroll figures are included for all employees as for production, development, and exploration workers.

b. In 1977, 1972, and 1967 data for companies without paid employees were excluded from the census of mineral industries. In 1963, there were 854 single-unit establishments without paid employees in the states covered by this report. In the 1963 census, establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

c. In 1977, 1972, and 1967, data for single-unit establishments without paid employees were excluded from the census. In 1963, there were 6,543 single-unit establishments without paid employees in the States. In the 1963 census, establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

d. Excludes data for uranium-radium-vanadium ores industry.

TABLE XIII-3. VALUE OF MICHIGAN FUEL AND METALLIC AND NONMETALLIC MINERAL PRODUCTION: 1945-1981

(In thousands of dollars)

Year	Fuel	Metallic	Nonmetallic[a]	Total
1945	28,607	43,545	55,894	128,046
1946	31,129	35,325	67,228	133,682
1947	37,847	56,943	75,479	170,269
1948	51,807	71,636	90,672	214,116
1949	48,082	65,102	94,403	207,608
1950	45,475	84,212	108,787	238,474
1951	40,279	90,279	127,052	257,530
1952	38,093	94,763	134,234	267,089
1953	37,333	105,236	145,125	287,693
1954	35,667	82,525	168,375	286,550
1955	33,623	145,380	192,354	371,357
1956	32,538	157,219	216,806	406,563
1957	31,785	144,235	230,790	406,810
1958	29,701	102,119	217,703	349,523
1959	33,719	97,363	254,240	385,322
1960	50,629	134,098	250,402	435,130
1961	62,144	125,956	255,164	443,263
1962	58,127	124,431	255,131	437,689
1963	58,099	155,277	272,208	485,583
1964	55,656	188,979	300,377	545,011
1965	54,685	204,241	30,875	526,801
1966	54,606	211,355	323,628	589,589
1967	53,371	207,975	334,104	595,449
1968	56,600	213,930	347,476	612,826
1969	55,580	248,945	354,904	659,445
1970	51,326	249,332	383,460	684,118
1971	49,292	226,325	380,166	655,783
1972	57,847	233,331	407,333	698,511
1973	80,194	276,526	460,230	816,950
1974	190,134	369,225	497,942	1,057,301
1975	327,456	425,201	492,695	1,245,352
1976	435,234	487,172	560,838	1,483,244
1977	506,965	418,667	612,088	1,537,719
1978	594,802	627,266	730,821	1,952,889
1979	803,378	697,342	823,159[p]	2,323,879
1980	1,050,000[p]	731,126	749,534[p]	2,530,710
1981	1,372,478[p]	733,472[p]	734,918[p]	2,840,868

SOURCE: Michigan Department of Natural Resources, special release; and United States Department of Interior, Bureau of Mines, special release.

[a] Includes cement, classified in manufacturing by the U.S. Bureau of the Census.

p: Preliminary.

TABLE XIII-4. VALUE OF MICHIGAN MINERAL PRODUCTION, BY PRODUCT: 1974-1981

(In thousands of dollars)

Mineral	1974	1975	1976	1977	1978	1979	1980	1981[p]
Iron ore	257,944	340,852	427,339	357,565	576,359	613,174	652,599	653,679
Cement	129,627	146,823	138,357	153,751	176,701	225,519	268,513	217,200
Petroleum	154,952	262,352	329,637	360,995	427,881	524,257	664,000	932,316
Sand & gravel	82,710	73,397	78,372	97,503	108,832	116,597	98,700	91,700
Nat. salines[a]	112,350	116,876	124,122	138,712	169,474	185,218	182,347	187,977
Copper	108,761	82,093	59,113	59,115	49,071	79,195	75,733	79,793
Salt	62,055	67,240	79,740	78,864	83,263	82,540	76,875	89,354
Stone[b]	47,625	46,461	63,517	66,331	96,789	99,998	85,568	87,154
Lime	30,036	36,540	39,686	42,015	45,814	43,373	37,603	36,208
Nat. gas	35,182	65,104	106,739	145,970	166,921	279,121	386,000	440,162
Gypsum (crude)[c]	7,258	5,936	8,760	10,769	18,996	14,633	13,573	8,690
Clay & shale[d]	4,074	3,580	4,741	5,126	6,993	7,430	6,495	11,312
Nat. gas liquids[e]	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)
Peat	3,810	3,206	3,714	4,754	3,843	4,847	5,473	5,313
Silver	(g)	2,256	1,223	1,987	1,836	4,973	2,795	n.a.
Marl	258	153	156	63	59	n.a.	n.a.	n.a.
Miscellaneous	3,463	872	936	856	1,060	10	10	n.a.
TOTAL	1,057,301	1,245,274	1,483,244	1,537,621	1,982,710	2,323,879	2,530,711	2,840,868

SOURCE: Michigan Department of Natural Resources, Michigan Mineral Producers (Lansing: annually), and pecial release.

NOTE: 1977 and 1978 totals adjusted to avoid double counting: stone used in the manufacture of cement and lime in Michigan; sandstone crushed to manufacture industrial sand; shale, clay, gypsum, and sand used in cement manufacturing in Michigan; samd amd grave; sand and gravel includes industrial sand; 1979 and 1980 stone includes marl.

a. Bromine, magnesium compounds, calcium-magnesium chloride, potash, and iodine.

b. Does not include limestone and dolomite used in the manufacture of cement and lime (1976 only that used within Michigan has been deducted).

c. 1976 value of gypsum used in Michigan to manufacture cement has been deducted.

d. Title brick, pottery, clay used for cement, lightweight aggregate, and miscellaneous. (1976 value used in Michigan for cement has been deducted).

e. Includes liquids stripped from gas delivered via interstate pipeline.

f. Included in petroleum and natural gas according to Proration Unit.

g. Included in miscellaneous.

p. Preliminary

n.a.: not available.

NOTE: Sand & Gravel
includes industrial
Sand. 1979 and 1980
Stone includes Marl.

TABLE XIII-5. QUANTITY OF SELECTED MINERALS PRODUCED IN MICHIGAN: 1974-1981

Minerals	Units of measurement	1974	1975	1976	1977	1978	1979	1980	1981[p]
Iron ore	1,000 long tons[a]	11,531	14,043	15,688	12,016	18,115	17,081	16,267	14,861
Cement	1,000 short tons[b]	6,120	4,809	5,131	5,816	6,223	5,944	4,878	4,166
Petroleum	1,000 barrels (42 gal.)	18,102	24,420	30,421	32,965	34,667	34,862	33,900	29,493
Sand & gravel	1,000 short tons	60,073	47,051	47,313	46,606	52,135	50,169	40,300	33,300
Nat. salines[c]	1,000 short tons	1,407	1,085	1,193	1,267	1,365	n.a.	n.a.	1,205
Copper	1,000 pounds	131,038	147,380	86,930	85,961	78,301	87,470	71,540	90,000
Salt	1,000 short tons	4,445	3,895	4,189	3,947	3,698	3,080	2,752	2,134
Stone[d]	1,000 short tons	28,140	23,820	41,418	40,529	40,719	39,818	30,509	28,607
Lime	1,000 short tons	1,528	1,434	1,456	1,347	1,291	1,057	807	792
Natural gas	1,000 thou. cu. ft.	69,806	102,664	120,250	133,227	150,535	150,731	159,000	151,568
Gypsum (crude)	1,000 short tons	1,482	1,234	1,837	1,924	2,765	2,562	2,089	1,343
Clay & shale[e]	1,000 short tons	2,161	1,818	1,934	2,007	2,122	2,072	1,968	1,866
Natural gas liquids[f]	1,000 gallons	55,230	218,888	(g)	(g)	(g)	(g)	(g)	(g)
Peat	1,000 short tons	244	245	300	291	219	258	244	253
Silver	1,000 fine oz.	537	632	289	447	354	475	159	n.a.
Marl	1,000 short tons	151	85	66	29	25	(h)	(h)	(h)

SOURCE: Michigan Department of Natural Resources, Michigan Mineral Producers (Lansing: annually, through 1979), special release, and U.S. Bureau of Mines.

a. Long tons (2,240 pounds).
b. Short tons (2,000 pounds).
c. Bromine, magnesium compounds, calcium-magnesium chloride, potash, and iodine.
d. Does not include limestone and dolomite used in the manufacture of cement and lime prior to 1976.
e. Tile brick, pottery, clay used for cement, lightweight aggregate, and miscellaneous.
f. Includes liquids stripped from gas delivered via interstate pipeline.
g. Natural gas liquids are figured into petroleum and natural gas production.
h. Marl included with stone.
p: Preliminary
n.a.: not available.

TABLE XIII-6. NUMBER OF ACTIVE MINES, SHIPMENTS, AND AVERAGE NUMBER OF MEN EMPLOYED IN IRON ORE MINING IN MICHIGAN: 1957-1981

Year	Number of active mines	Shipments by range (thousands of long tons)			Employment
		Marquette	Menominee	Gogebic	
1957	36	5,993	4,297	2,837	6,311
1958	32	3,722	3,095	1,394	4,912
1959	27	3,530	2,478	1,251	4,163
1960	27	4,945	4,121	1,890	4,723
1961	24	4,183	3,886	1,362	3,466
1962	21	4,500	3,462	1,480	2,857
1963	19	5,850	4,304	813	3,586
1964	16	7,945	4,624	1,403	3,912
1965	16	8,925	4,361	773	3,775
1966	15	9,660	4,328	364	3,690
1967	12	10,165	3,630	239[a]	3,430
1968	11	9,367	3,449	0	3,090
1969	11	11,163	3,390	0	3,061
1970	7	10,336	2,925	0	2,798
1971	7	9,331	2,834	0	2,425
1972	6	9,251	2,577	0	2,226
1973	6	9,941	2,374	0	2,322
1974	6	9,009	2,522	0	2,548
1975	6	12,143	2,235	0	2,949
1976	6	13,362	2,326	0	3,032
1977	6	9,683	2,332	0	3,344
1978	6	15,934	2,252[b]	0	3,294
1979	5	14,993[c]	2,358	0	3,083
1980	4	13,868	1,866	0	2,822
1981	n.a.	14,861[d]	n.a.	0	n.a.

SOURCE: Michigan Department of Natural Resources, Geological Survey Division, special release.

a. Peterson mine permanently closed January 1967. Stockpile shipments completed in 1967.

b. Sherwood mine closed July 1978, shipments continued through 1979.

c. Mather mine closed July 1979, shipments continued through 1979.

d. Michigan total.

n.a.: not available.

TABLE XIII-7. PRODUCTION AND SHIPMENTS OF PORTLAND AND MASONRY CEMENT FROM MICHIGAN MILLS: 1957-1981

Year	Number of plants	Production (barrels)	Shipment (barrels)	Value of shipments
1957	8	21,015,000	22,045,034	71,605,137
1958	8	19,841,000	20,911,990	70,432,501
1959	8	21,561,000	23,025,928	77,323,974
1960	9	20,971,000	22,351,498	77,694,087
1961	9	21,661,000	23,462,554	79,638,973
1962	9	23,070,000	24,[illegible]98,903	77,601,954
1963	9	24,194,000	26,694,665	81,446,667
1964	9	26,802,000	28,133,856	89,270,172
1965	8	27,018,000	29,135,052	92,369,052
1966	8	28,848,000	29,683,903	92,634,187
1967	9	31,350,682	31,131,016	90,810,328
1968	9	32,779,308	32,868,574	104,684,405
1969	9	31,982,736	31,790,616	103,897,422
1970	9	31,982,091	32,318,659	110,513,273
1971	9	33,723,094	33,750,455	109,833,119
1972	9	32,717,784	32,719,919	117,368,094
1973	9	33,781,604	34,515,369	129,627,462
1974	8	n.a.	32,552,275	146,822,510
1975	8	n.a.	25,581,964	138,356,710
1976	8	28,358,195	27,388,260	153,751,000
1977	8	5,815,974[a]	5,796,698[a]	175,458,343
1978	7	6,210,009[a]	6,189,337[a]	225,402,230
1979	7	6,053,375	5,944,109	268,512,624
1980[p]	6	4,878,000	n.a.	243,000,000[e]
1981[p]	n.a.	4,166,000	n.a.	217,200,000[e]

SOURCE: Michigan Department of Natural Resources, special release.

NOTE: one barrel = 376 pounds or 0.188 short tons.

a. Short tons.

p: Preliminary.

e: Estimated.

n.a.: not available.

TABLE XIII-8. COPPER PRODUCTION IN MICHIGAN, BY COUNTY: 1957-1981

(In pounds)

Year	Houghton	Keweenaw	Ontonagon	Total
1957	21,781,882	22,843,409	69,021,852	113,647,143
1958	16,345,030	23,886,930	81,827,063	122,059,023
1959	20,689,233	22,730,365	69,661,935	113,081,533
1960	21,704,276	18,592,215	75,142,046	115,438,537
1961	20,175,410	18,337,000	103,756,178	142,268,588
1962	24,072,160	13,075,067	106,613,451	143,760,678
1963	22,879,603	13,000,730	113,900,191	149,780,524
1964	19,818,237	9,507,806	108,458,751	137,784,794
1965	15,759,103	6,414,944	123,743,392	145,917,439
1966	17,433,796	8,128,529	121,181,717	146,744,040
1967	16,695,626	7,763,357	92,731,257	117,190,240
1968	6,592,118	4,696,188	137,092,516	148,380,322
1969	0	0	149,952,283	149,952,283
1970	0	0	135,086,800	135,086,800
1971	0	0	112,155,147	112,155,147
1972	0	0	131,937,378	131,937,378
1973	0	0	151,678,939	151,678,939
1974	0	0	131,037,602	131,037,602
1975	1,455,657	0	140,819,850	142,275,507
1976	3,886,218	0	83,044,081	86,930,299
1977	0	0	85,960,551	85,960,551
1978	0	0	78,301,136	78,301,136
1979	0	0	87,469,886	87,469,886
1980	0	0	71,540,437	71,540,437
1981p	0	0	90,000,000	90,000,000

SOURCE: Michigan Department of Natural Resources, special release.

p: Preliminary.

TABLE XIII-9. CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN MICHIGAN, BY MAJOR USE CATEGORY: 1979 AND 1980

(In thousands of short tons and thousands of dollars)

Use	1979			1980		
	Quantity	Value	Value per ton	Quantity	Value	Value per ton
Concrete aggregate	14,019	$ 32,464	$ 2.32	9,735	$ 25,853	$ 2.66
Plaster and gunite snads	273	658	2.41	241	694	2.89
Concrete products	1,885	4,210	2.23	1,809	5,305	2.93
Asphaltic concrete	6,572	11,964	1.82	5,704	12,801	2.24
Roadbase and coverings	15,380	28,366	1.84	10,673	22,020	2.06
Fill	4,993	6,048	1.21	3,242	4,109	1.27
Snow and ice control	629	846	1.34	448	673	1.50
Railroad ballast	40	88	2.21	56	118	2.11
Other	806	1,992	2.47	628	1,593	2.54
TOTAL[a] or average	44,596	86,635	1.94	32,536	73,166	2.25

SOURCE: U.S. Bureau of Mines, Minerals Yearbook, 1980.

[a] Data may not add to totals shown because of independent rounding.

TABLE XIII-10. INDUSTRIAL SAND AND GRAVEL SOLD OR USED, BY PRODUCER AND USE: 1979 AND 1980

(In thousands of short tons and thousands of dollars)

Use	1979 Quantity	1979 Value	1979 Value per ton	1980 Quantity	1980 Value	1980 Value per ton
Construction:						
Sand	17,901	$ 30,016	$ 1.68	13,336	$ 27,872	$ 2.09
Gravel	26,696	56,619	2.12	19,200	45,924	2.36
TOTAL[a] or average	44,596	86,635	1.94	32,536	73,166	2.25
Industrial:						
Sand	5,572	29,962	5.38	4,062	25,188	6.20
Gravel	--	--	--	--	--	--
TOTAL	5,572	29,962	5.38	4,062	25,188	6.20
GRAND TOTAL[a] or average	50,169	116,597	2.32	36,597	98,354	2.69

SOURCE: U.S. Bureau of Mines. Minerals Yearbook, 1980.

[a] Totals may not add due to rounding.

TABLE XIII-11. CRUSHED STONE SOLD OR USED BY MICHIGAN PRODUCERS, BY USE: 1979 AND 1980

Use	1979		1980	
	Quantity (1,000) short tons	Value ($1,000)	Quantity (1,000) short tons	Value ($1,000)
Agricultural limestone[1]	366	$ 956	221	$ 773
Agricultural marl and other soil conditioners	23	50	27	54
Concrete aggregate (coarse)	4,761	9,882	3,223	7,761
Bituminous aggregate	2,151	5,972	1,732	5,355
Macadam aggregate	603	1,307	372	1,008
Dense-graded roadbase stone	1,277	3,526	1,044	3,279
Surface treatment aggregate	138	428	162	482
Other construction aggregate and roadstone	4,089	11,159	1,817	5,753
Riprap and jetty stone	588	1,607	443	1,168
Railroad ballast	437	1,075	W	W
Terrazzo and exposed aggregate	W	4	W	W
Cement manufacture	7,234	15,159	6,589	14,455
Lime manufacture	9,810	25,027	7,698	22,580
Flux stone	7,468	21,489	7,702	25,909
Other uses[2]	862	2,191	1,090	3,150
TOTAL[3]	39,809	99,832	32,121	91,727

SOURCE: U.S. Bureau of Mines, Minerals Yearbook, 1980.

W: Withheld to avoid disclosing company, propietary data; included with "other uses."

[1] Includes limestone, granite(1979), marl, sandstone, and traprock.

[2] Includes stone used for poultry grit and mineral food, manufactured fine aggregate (stone sand), chemical stone, asphalt filler(1979), paper manufacture, sugar refining, and waste material.

[3] Data may not add to totals shown because of independent rounding.

TABLE XIII-12. PERMITS TO DRILL, AND OIL AND GAS WELL COMPLETIONS IN MICHIGAN: 1950-1981

		Classification of well completions					
		Oil	Gas	Service wells		Dry	Total
Year	Permits issued	wells	wells	OBS-GS[a]	BDW-LPG[b]	holes	completions
1950	903	336	28	47	0	473	884
1951	744	227	20	43	1	466	757
1952	694	261	30	51	2	370	714
1953	824	258	18	110	1	360	747
1954	573	214	15	2	2	338	571
1955	484	204	13	1	1	291	510
1956	476	196	12	28	0	227	463
1957	461	176	40	35	3	207	461
1958	481	166	20	36	4	227	453
1959	727	257	47	72	4	272	652
1960	904	372	19	79	1	441	912
1961	849	207	57	74	3	376	817
1962	711	148	62	53	4	474	741
1963	704	135	72	56	2	384	650
1964	583	82	48	126[c]	0	376	632
1965	494	53	34	106	0	291	485
1966	430	56	45	11	2	290	404
1967	405	69	38	26	0	287	420
1968	378	70	12	30[d]	6	251	369
1969	379	73	9	26	0	239	347
1970	425	50	16	108	3	211	388
1971	425	83	31	83	13	186	396
1972	423	84	38	64	2	186	374
1973	445	81	47	67	0	173	369
1974	503	134	61	54	2	235	484
1975	653	167	40	38	0	330	571
1976	645	120	57	50	0	333	560
1977	692	136	70	49	1	341	597
1978	690	146	57	74	0	325	602
1979	649	173	58	68	0	290	589
1980	856	208	51	57	0	416	732
1981	1,048	252	43	34	0	450	779

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1947 through 1981 (Lansing: annually).

a. OBS-GS: wells used for gas storage or observation.
b. LPG injection and extraction wells in liquified petroleum gas storage facilities and brine disposal wells.
c. Includes three brine disposal wells, one water injection well, and one geological information test.
d. Includes two water injection wells and one brine disposal well.

TABLE XIII-13. OIL AND GAS WELL COMPLETIONS IN MICHIGAN, AND FOOTAGE DRILLED, BY COUNTY: 1979 AND 1980

County	1979 Total well footage: Exploratory	1979 Total well footage: Developmental	1979 Average[a] well depth	1979 Total wells drilled	1980 Total well footage: Exploratory	1980 Total well footage: Developmental	1980 Average well depth	1980 Total wells drilled
Alcona	3,257	0	3,257	1	--	--	--	--
Allegan	7,015	10,374	3,515	5	5,570	0	2,785	2
Antrim	1,853	13,706	5,186	3	6,815	8,743	5,186	3
Arenac	8,596	0	4,322	2	4,344	9,036	4,460	3
Bay	6,564	0	3,282	2	25,181	12,752	3,448	11
Berrien	0	0	0	0	637	0	637	1
Branch	4,633	0	4,633	1	--	--	--	--
Calhoun	36,717	39,432	2,929	26	80,905	58,258	3,236	43
Cass	1,240	1,516	919	3	2,472	6,745	805	12
Cheboygan	23,041	0	3,840	6	13,388	5,719	3,821	5
Clare	14,849	61,741	4,884	16	20,353	46,692	4,282	19
Clinton	5,620	0	2,810	2	--	--	--	--
Crawford	14,746	30,954	5,078	9	7,102	44,708	6,001	12
Eaton	45,007	11,693	4,050	14	51,609	15,451	3,945	17
Genesee	0	3,202	3,202	1	0	0	0	0
Gladwin	6,435	20,039	3,414	9	0	69,688	2,904	24
Grand Traverse	265,971	116,486	5,884	65	285,715	243,210	5,206	102
Gratiot	2,640	0	2,640	1	0	0	0	0
Hillsdale	0	20,441	4,088	5	12,648	28,477	4,113	10
Ingham	22,234	3,735	3,701	7	74,661	24,368	3,961	25
Isabella	14,391	0	3,607	5	8,890	31,439	4,033	10
Jackson	16,843	16,914	4,822	7	0	39,701	5,672	7
Kalamazoo	5,830	0	2,915	2	0	2,830	2,830	1
Kalkaska	148,001	98,154	6,154	40	129,862	134,211	6,230	59
Lapeer	3,220	25,827	3,227	9	9,878	34,926	3,200	14

TABLE XIII-13. OIL AND GAS WELL COMPLETIONS IN MICHIGAN, AND FOOTAGE DRILLED, BY COUNTY: 1979 AND 1980 (cont.)

County	1979				1980			
	Total well footage				Total well footage			
	Exploratory	Developmental	Average[a] well depth	Total wells drilled	Exploratory	Developmental	Average well depth	Total wells drilled
Lenawee	0	0	0	1	4,921	3,790	2,178	4
Livingston	17,721	3,980	4,340	5	19,993	0	3,332	6
Macomb	19,759	7,286	2,736	10	20,257	16,610	3,687	10
Manistee	116,170	262,800	4,467	86	164,926	165,768	4,492	74
Mason	3,000	4,540	2,513	3	0	6,972	3,486	2
Mecosta	3,666	2,932	1,581	17	16,068	1,342	2,352	11
Midland	0	0	3,800	1	3,707	10,698	3,601	4
Missaukee	22,345	101,032	4,406	28	916	120,070	4,551	29
Monroe	0	0	0	0	3,101	0	3,101	1
Montcalm	0	0	1,300	8	3,275	5,315	1,657	12
Montmorency	37,058	6,636	4,369	10	33,451	0	4,779	7
Muskegon	0	2,026	2,026	1	1,743	0	1,743	1
Newaygo	0	0	1,182	3	3,100	13,799	3,380	5
Oakland	12,300	14,211	3,787	7	30,124	25,495	3,973	14
Oceana	5,065	1,640	3,353	2	16,042	4,299	5,085	4
Ogemaw	0	19,285	2,750	13	4,139	33,616	3,195	17
Osceola	8,243	0	4,122	2	14,770	0	4,923	3
Otsego	90,664	146,356	4,799	55	124,277	118,886	4,445	61
Ottawa	0	0	0	0	2,835	0	2,835	1
Presque Isle	92,251	13,166	3,401	31	105,305	0	3,097	34

TABLE XIII-13. OIL AND GAS WELL COMPLETIONS IN MICHIGAN, AND FOOTAGE DRILLED, BY COUNTY: 1979 AND 1980 (cont.)

County	1979				1980			
	Total well footage				Total well footage			
	Exploratory	Developmental	Average well depth	Total wells drilled	Exploratory	Developmental	Average well depth	Total wells drilled
Roscommon	0	27,791	4,632	6	3,737	71,412	4,421	17
Saginaw	5,457	2,449	2,635	3	6,038	12,848	2,698	7
Sanilac	2,619	0	2,619	1	8,512	0	8,512	1
St. Clair	11,988	7,108	4,320	29	10,785	3,135	2,784	5
Tuscola	4,025	41,263	4,529	10	11,194	15,314	4,418	6
Van Buren	3,461	5,813	1,159	8	3,625	5,921	1,335	8
Washtenaw	8,475	0	4,238	2	0	3,681	3,681	1
Wayne	0	0	0	0	0	0	1,164	2
Wexford	23,545	6,182	4,955	6	8,126	14,143	1,164	5
TOTAL	1,146,515	1,150,710		589	1,375,993	1,468,038		732

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1979 and 1980 (Lansing: annually), Table 1 (1980).

a. In some cases average well depth includes facility footage credited to old wells drilled deeper as well as exploratory footage and/or developmental footage.

b. Includes some exploratory footage credited to old wells drilled deeper.

c. Includes some development footage credited to old wells drilled deeper.

TABLE XIII-14. STATE OF MICHIGAN REVENUE FROM OIL AND NATURAL GAS PRODUCTION: 1927-1980

Years	Royalty	Rental	Bonus	Application, assignment fees	Total income
1927-1931	$ 85,263	$ 43,822	$ 27,707	$ 1,204	$ 157,996
1932-1936	209,126	205,350	87,211	4,506	506,193
1937-1941	1,302,356	724,330	515,706	7,367	2,549,759
1942-1946	1,645,462	2,021,513	601,065	3,759	4,271,800
1947-1951	1,813,632	2,256,914	1,307,470	4,398	5,382,414
1952-1956	2,727,410	1,989,343	257,187	3,028	4,976,968
1957-1961	1,879,927	769,594	475,841	3,702	3,129,064
1962-1966	1,259,162	1,476,950	409,809	4,982	3,150,903
1967	250,785	199,399	49,192	1,126	500,501
1968	324,934	451,117	1,223,971	2,849	2,002,870
1969	404,709	819,550	894,133	872	2,119,264
1970	429,796	929,596	-132	736	1,359,996
1971	749,815	858,360	1,361	426	1,609,962
1972	944,441	831,057	10,165,151	2,854	11,943,502
1973	1,960,854	1,261,208	3,133	1,658	3,226,852
1974	5,814,636	1,280,109	7,131,732	2,248	14,228,725
1975	9,637,835	1,297,691	514,248	2,603	11,452,378
1976	13,293,209	1,328,660	524,973	616	15,147,458
1977	13,327,908	1,190,620	357,006	3,069	14,878,603
1978	18,244,756	1,131,238	14,483	1,733	19,392,210
1979	24,269,564	1,100,307	1,414,667	1,047	26,785,585
1980	24,504,728	1,015,877	- 2,983	1,679	25,519,302

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1980 (Lansing: 1981), p. 43.

TABLE XIII-15. NATURAL GAS PLANT OPERATIONS IN MICHIGAN, BY PLANT OR FIELD: 1981

Plant or field	Total input (Mcf.)	Sales to pipe line (Mcf.)	Liquefied petroleum gas recovery (gallons)
Albion-Scipio	5,524,514	3,790,007	19,862,969
Aurelius	6,417,448	5,532,034	14,096,932
Beaver Creek	401,895	228,823	295,394
Chester	67,152	53,675	155,720
Columbus, Section 3	865,423	0	1,401,884
Convis	172,788	122,955	270,231
Hamilton[a]	101,252	41,916	0
Kalkaska (Amoco)	43,817,371	40,353,504	94,198,368
Kalkaska (Shell)	81,783,578	65,710,197	342,335,026
Leonard	1,441,719	1,139,257	1,456,,440
Marathon	362,221	269,426	779,068
Otsego 27	242,540	192,749	608,636
Reed City	10,592,979	0	2,624,360
Romeo	4,418,767	4,342,983	3,642,761
TOTALS	156,209,642	122,777,526	481,727,789

SOURCE: Michigan Department of Natural Resources, *Michigan's Oil and Gas Fields, 1981* (Lansing: 1983), Table 6.

NOTE: This table is the record of plants which are serving oil field operations, or which are extracting natural gas liquids from designated dry gas sources.

a. Receives and processes oil well gas only.

b. These LPG figures include stabilized condensate.

XIV. CONSTRUCTION

There have been three censuses of construction industries since 1939, one for 1967 and others for 1972 and 1977. Current law authorizes the U.S. Bureau of the Census to canvass the nation's industrial and business establishments at five-year intervals (for years ending in 2 and 7). These economic censuses cover construction industries, manufacturing, mining, retail trade, selected services, selected transportation, and wholesale trade.

Each establishment is classified on the basis of its major economic activity: those primarily engaged in contract construction (general contractors or special trade contractors such as plumbing and electrical work), in construction for sales on their own account (operative builders), or in subdividing real property into lots (subdividers and developers, except cemeteries).

A construction establishment is a place of business from which such activities as estimating, bidding, scheduling, purchasing, supervision, and so forth, are conducted irrespective of the locations of construction sites that are not separate establishments in and of themselves. A construction concern engaging in two or more distinctly different lines of economic activity, such as wholesaling or retailing, reports on each separately, provided that each activity is of substantial size and that separate records are available or can be estimated for the activity.

Construction firms are divided into those with payroll and those without. The former were queried in a census survey as to whether they were large, medium, or small. Nonemployers were not required to complete a Census of Construction Industries questionnaire; instead, the Census Bureau obtained relevant information from administrative records of other agencies.

Current data on construction activity are available in two Census Bureau publications, Construction Reports and Construction Review.

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TABLE XIV-1. AVERAGE WAGE AND SALARY EMPLOYMENT AND WEEKLY HOURS AND EARNINGS OF PRODUCTION WORKERS IN MICHIGAN AND UNITED STATES ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY IS CONTRACT CONSTRUCTION, SUBDIVIDING, OR DEVELOPING: 1956-1982

	Michigan				United States			
	Employment	Weekly		Hourly	Employment	Weekly		Hourly
Year	(000)	Hours	Earnings	earnings	(000)	Hours	Earnings	earnings
1956	101.1	38.5	114.48	2.98	3,039	37.5	96.38	2.57
1957	96.0	37.0	116.85	3.16	2,962	37.0	100.27	2.71
1958	85.9	36.9	123.00	3.33	2,817	36.8	103.78	2.82
1959	77.4	37.9	131.06	3.46	3,004	37.0	108.41	2.93
1960	97.2	37.5	131.03	3.49	2,926	36.7	112.67	3.07
1961	91.2	37.8	132.98	3.52	2,859	36.9	118.08	3.20
1962	88.0	34.9	134.37	3.85	2,948	37.0	122.47	3.31
1963	94.0	35.5	141.89	4.00	3,010	37.3	127.19	3.41
1964	99.5	35.3	145.79	4.13	3,097	37.2	132.06	3.55
1965	111.1	39.7	178.09	4.49	3,232	37.4	138.38	3.70
1966	115.2	39.4	188.77	4.79	3,317	37.6	146.26	3.89
1967	120.0	40.9	202.46	4.95	3,248	37.7	154.95	4.11
1968	107.7	39.2	211.33	5.39	3,350	37.3	164.49	4.41
1969	128.6	38.9	246.70	6.34	3,575	37.9	181.54	4.79
1970	118.5	37.2	257.09	6.91	3,588	37.3	195.45	5.24
1971	120.5	36.3	275.92	7.60	3,704	37.2	211.67	5.69
1972	127.5	36.5	290.37	7.96	3,889	36.5	221.19	6.06
1973	131.4	36.8	306.62	8.33	4,097	36.8	235.89	6.41
1974	125.8	36.5	319.99	8.76	4,020	36.6	249.25	6.81
1975	106.3	36.4	342.20	9.40	3,525	36.4	266.08	7.31
1976	110.0	36.9	362.90	9.84	3,576	36.8	283.73	7.71
1977	122.8	36.8	386.22	10.50	3,851	36.5	295.65	8.10
1978	138.8	38.4	424.74	11.06	4,229	36.8	318.69	8.66
1979	139.5	37.9	448.24	11.83	4,463	37.0	342.99	9.27
1980	116.8	36.2	457.35	12.63	4,346	37.0	367.78	9.94
1981	106.8	36.5	502.27	13.75	4,176	36.9	398.52	10.80
1982	90.0	36.0	518.15	14.37	3,913	36.8	425.41	11.56

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, Employment and Earnings (Washington, D.C. monthly), March 1983, Tables B-1 and C-1.

TABLE XIV-2. SUMMARY STATISTICS FOR MICHIGAN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY IS CONTRACT CONSTRUCTION, SUBDIVIDING, AND DEVELOPING: 1967, 1972, AND 1977

Item	1967	1972	1977
Proprietors and working partners			
Total	25,635	28,778	34,221
In establishments with payroll	11,086	10,423	9,199
Total receipts, establishments without payroll ($000)	219,527	344,525	651,641
	Establishments with payroll		
Number:			
With 1 - 9 employees	11,538	13,537	13,623
With 10 - 49 employees	2,238	2,489	2,419
With 50 - 99 employees	284	253	206
With 100 employees or more	145	125	105
Total	14,205	16,404	16,354
Number of employees:			
Mid-March	104,985	107,609	102,460
Mid-May	124,637	130,655	133,427
Mid-August	140,582	146,165	143,109
Mid-November	127,769	131,886	133,332
Average	125,853	130,828	128,198
Payroll, entire year ($000)	1,061,479	1,527,560	1,923,025
Construction workers:			
Mid-March	88,229	84,603	83,053
Mid-May	107,621	106,659	112,002
Mid-August	122,945	121,437	122,138
Mid-November	110,396	107,387	112,054
Average	108,637	106,685	107,420
Payroll, entire year ($000)	875,026	1,220,662	1,537,235
Total selected payments ($000)	2,338,513	3,231,495	4,326,389
Materials, components, and supplies ($000)	1,179,026	1,654,576	2,248,550
Construction work subcontracted to others ($000)	1,160,336	1,576,919	1,941,319
Total receipts ($000)	4,232,336	5,961,230	7,759,714
Total construction receipts ($000)	4,127,817	5,746,253	7,549,535
Receipts for work subcontracted in from others ($000)	865,871	1,278,948	1,852,362
Other business receipts and land receipts ($000)	103,094	214,977	210,179
Net construction receipts ($000)	2,967,588	4,169,334	5,608,217
Value added in construction ($000)	1,850,119	2,615,296	3,378,784

SOURCE: Bureau of the Census, U.S. Census of Construction Industries, 1977, Area Series, East North Central States (Washington, D.C.: 1980), CC77-A-3, Tables 3 and 4; and similar documents for previous years.

TABLE XIV-3. SUMMARY STATISTICS FOR UNITED STATES ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY IS CONTRACT CONSTRUCTION, SUBDIVIDING, AND DEVELOPING: 1967, 1972 AND 1977

ITEM	1967	1972	1977
Number of establishments with payroll:			
With 1 - 9 employees	368,771	437,941	480,014
With 10 - 49 employees	301,587	351,494	391,345
With 50 - 99 employees	56,920	73,937	77,692
With 100 employees or more	6,419	7,991	7,041
Total	3,845	4,519	3,936
Proprietors and working partners;			
Total	696,813	748,253	1,013,961
In establishments with payroll	270,511	274,434	279,309
Total receipts, establishments without payroll ($000)	5,809,943	8,608,039	20,150,970
Establishments with payroll			
Number of employees;			
Mid-March	3,038,721	3,668,194	3,782,235
Mid-May	3,393,104	4,077,149	4,371,767
Mid-August	3,740,136	4,475,893	4,585,861
Mid-November	3,437,012	4,179,628	4,336,522
Average	3,436,265	4,145,779	4,272,659
Payroll, entire year ($000)	24,213,187	40,004,782	54,980,063
Construction workers:			
Mid-March	2,572,985	3,034,864	3,104,164
Mid-May	2,923,346	3,424,013	3,648,751
Mid-August	3,244,628	3,800,426	3,872,029
Mid-November	2,960,362	3,509,774	3,623,655
Average	2,960,308	3,486,592	3,565,469
Payroll, entire year ($000)	19,855,476	32,187,130	43,112,339
Total selected payments ($000)	52,451,424	84,623,758	112,110,369
Materials, components, & supplies ($000)	29,378,373	46,426,441	67,983,316
Construction work subcontracted to others ($000)	23,069,834	38,199,317	50,328,020
Total receipts ($000)	95,925,449	155,849,652	224,664,938
Total construction receipts ($000)	92,588,002	149,429,496	214,844,319
Receipts for work subcontracted in from others ($000)	17,959,822	30,857,137	49,806,349
Other business receipts and land receipts ($000)	3,341,090	6,420,156	9,820,620
Net construction receipts ($000)	69,520,058	111,232,179	164,516,299
Value added in construction ($000)	42,322,697	68,197,327	98,863,653

SOURCE; Bureau of the Census, *U.S. Census of Construction Industries, 1977, U.S. Summary* (Washington, D.C.: 1980), CC77-A-10, Tables 1 and 4; and similar documents for previous years.

TABLE XIV-4. RANKING OF MICHIGAN COUNTIES ACCORDING TO EARNINGS IN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY IS CONTRACT CONSTRUCTION, SUBDIVIDING, AND DEVELOPING AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1981

County	Percentage		County	Percentage	
	1971	1981		1971	1981
Montmorency	10.95	16.28	Alpena	6.03	4.48
Monroe	6.22	16.07	Bay	6.46	4.47
Kalkaska	14.94	15.96	Macomb	5.92	4.32
Midland	6.58	15.73	Iosco	3.38	4.15
Alcona	9.81	14.58	Marquette	4.52	4.12
St. Clair	6.49	11.32	Barry	3.73	3.98
Cheboygan	9.58	10.70	Oceana	3.36	3.95
Mackinac	(D)	10.25	Saginaw	5.54	3.78
Iron	18.96	10.24	Huron	3.78	3.62
Leelanau	11.61	9.78	Allegan	5.31	3.62
Benzie	(D)	9.50	Ingham	5.69	3.57
Dickinson	12.99	8.94	Calhoun	3.72	3.42
Missaukee	8.17	8.31	Manistee	4.68	3.31
Van Buren	8.12	8.18	Ionia	4.37	3.28
Emmet	11.69	8.00	Mecosta	5.16	3.26
Oscoda	8.04	7.47	Montcalm	2.58	3.25
Clare	5.87	7.06	Delta	4.42	3.23
Grand Traverse	9.09	7.04	Jackson	5.78	3.15
Lake	(D)	6.93	Newaygo	4.12	3.03
Mason	26.37	6.84	St. Joseph	4.02	2.99
Gladwin	8.82	6.70	Gratiot	4.34	2.99
Livingston	6.90	6.56	Wayne	4.72	2.85
Chippewa	4.60	6.44	Sanilac	3.53	2.79
Charlevoix	5.12	6.02	Tuscola	4.06	2.69
Houghton	9.33	5.67	Hillsdale	3.35	2.68
Clinton	7.80	5.57	Arenac	2.19	2.67
Oakland	9.98	5.50	Alger	(D)	2.63
Eaton	5.21	5.50	Presque Isle	2.49	2.61
Isabella	5.57	5.33	Cass	(D)	2.48
Baraga	(D)	5.32	Wexford	4.37	2.47
Ogemaw	10.06	5.28	Washtenaw	4.46	2.45
Kent	6.85	5.12	Lenawee	3.38	2.38
Otsego	(D)	5.12	Branch	3.26	2.15
Antrim	(D)	5.04	Ontonagon	1.69	1.96
Ottawa	5.82	4.93	Luce	1.39	1.77
Osceola	2.85	4.89	Genesee	4.17	(D)
Kalamazoo	7.05	4.80	Gogebic	5.05	(D)
Lapeer	3.76	4.72	Keweenaw	0.00	(D)
Crawford	4.80	4.71	Schoolcraft	4.18	(D)
Muskegon	5.01	4.71	Shiawassee	3.97	(D)
Menominee	5.17	4.64			
Roscommon	5.73	4.61	Michigan	5.70	4.17
Berrien	4.17	4.56	United States	6.43	5.61

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D) Witheld to avoid disclosing data for individual companies.

TABLE XIV-5. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN ESTABLISHMENTS WHOSE PRIMARY ECONOMIC ACTIVITY IS CONTRACT CONSTRUCTION, SUBDIVIDING, AND DEVELOPING: 1980-1981

County	Percentage change 1971-1981	Percentage change 1980-1981	County	Percentage change 1971-1981	Percentage change 1980-1981
St. Clair	320	62	Kent	100	-6
Isabella	189	55	Alger	(D)	-6
Osceola	329	55	Montmorency	170	-6
Ontonagon	121	33	Lake	(D)	-6
Midland	510	30	Calhoun	100	-6
Mackinac	(D)	30	Benzie	(D)	-7
Oceana	189	17	Wexford	59	-7
Crawford	174	12	Alpena	68	-7
Charlevoix	227	8	Muskegon	116	-8
Huron	131	6	Presque Isle	154	-8
Iron	29	6	Delta	88	-8
Kalkaska	692	6	Antrim	(D)	-8
Leelanau	77	5	Washtenaw	60	-8
Saginaw	58	4	Grand Traverse	147	-9
Menominee	137	4	Oakland	61	-9
Missaukee	167	3	Macomb	66	-9
Dickinson	78	2	Baraga	(D)	-10
Clare	197	2	Kalamazoo	79	-10
Iosco	139	2	Ionia	98	-10
Manistee	67	2	Cass	(D)	-11
Cheboygan	178	1	Mason	-51	-12
Arenac	214	1	Hillsdale	89	-12
Emmet	66	1	Mecosta	68	-12
Barry	141	0	Montcalm	210	-14
Otsego	(D)	-1	Ogemaw	57	-14
Eaton	160	-1	Van Buren	140	-15
Marquette	153	-1	Gladwin	98	-15
Berrien	117	-1	Gratiot	63	-15
Tuscola	68	-2	St. Joseph	76	-17
Luce	228	-2	Houghton	46	-20
Alcona	249	-2	Ottawa	144	-22
Bay	59	-3	Allegan	76	-23
Lenawee	38	-3	Jackson	22	-23
Newaygo	56	-3	Branch	60	-29
Chippewa	123	-3	Genesee	(D)	(D)
Lapeer	208	-4	Gogebic	(D)	(D)
Wayne	14	-4	Keweenaw	(D)	(D)
Sanilac	60	-4	Monroe	589	(D)
Livingston	193	-5	Schoolcraft	(D)	(D)
Roscommon	122	-5	Shiawassee	(D)	(D)
Oscoda	99	-5			
Clinton	91	-5	Michigan	68	-2
Ingham	65	-5	United States	124	4

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D) Witheld to avoid disclosing data for individual companies.

TABLE XIV-6. NUMBER OF RESIDENTIAL AND NONRESIDENTIAL UNITS AUTHORIZED IN MICHIGAN PERMIT ISSUING PLACES, BY CATEGORY: 1977-1981 AND PRELIMINARY 1982

Category	Number of units					
	1977	1978	1979	1980	1981	1982
One-family houses	42,265	43,323	33,926	17,870	11,595	7,648
Two-family buildings	856	1,052	1,046	780	454	208
Three- & four-family buildings	1,000	1,223	1,522	999	874	440
Five- or more family buildings	14,986	15,412	12,715	9,327	5,994	4,986
Total	59,057	61,010	49,209	28,976	18,917	13,282
Moved or relocated residential bldgs.	418	357	418	374	334	--
Mobile homes (house trailers)[a]	5,013	5,667	5,572	4,768	4,922	3,484
Transient hotels, motels, tourist courts and cabins	1,862	1,517	2,204	1,629	724	766
Other shelters	68	83	205	123	76	21
Amusement & recreational bldgs.	287	210	175	125	133	122
Churches & other religious bldgs.	194	202	202	142	126	110
Industrial buildings	1,277	1,468	1,450	789	634	396
Parking garages (open to gen'l. public)	256	421	246	320	199	15
Residential garages & carports	18,290	18,964	17,896	13,241	13,271	12,076
Service stations & repair garages	180	156	141	118	117	83
Hospitals & other inst'l. bldgs.	84	82	77	42	42	25
Office, bank, & professional bldgs.	657	720	739	542	459	295
Public works & utilities bldgs.	106	125	123	83	152	110
Schools & other educational bldgs.	60	73	66	42	39	32
Stores & other mercantile bldgs.	1,636	1,502	1,509	934	787	549
Other nonresidential buildings	5,336	6,221	6,756	5,734	5,882	4,958
Structures other than buildings	6,787	6,443	5,505	5,149	5,281	3,613
Additions, alterations, & conversions						
Housekeeping residential buildings	55,969	55,430	56,519	50,793	52,398	40,411
All other buildings & structures	11,977	12,878	12,805	12,714	12,511	11,420

SOURCE: Bureau of the Census, special release.

a. Includes only house trailers for which building permits are issued.

TABLE XIV-7. VALUATION OF RESIDENTIAL AND NONRESIDENTIAL UNITS AUTHORIZED IN MICHIGAN PERMIT ISSUING PLACES, BY CATEGORY: 1977-1981 AND PRELIMINARY 1982

(millions of dollars)

Category	1977	1978	1979	1980	1981	1982
One family houses	1,516.8	1,759.0	1,552.1	873.8	579.5	369.7
Two-family buildings	17.5	23.8	29.8	25.1	15.5	7.4
Three-and four-family buildings	21.8	27.3	37.0	31.1	26.9	13.3
Five- or more family buildings	256.4	294.3	281.0	234.1	199.9	164.2
Total	1,812.5	2,104.4	1,899.9	1,164.1	821.8	554.6
Moved or relocated residential buildings	2.6	2.1	3.5	2.5	2.3	--
Mobile homes (house trailers)[a]	28.7	30.8	34.0	29.8	37.0	24.6
Transient hotels, motels, tourist courts and cabins	36.3	20.6	43.1	51.8	19.6	7.2
Other shelters	1.4	0.4	1.6	.9	.6	.1
Amusement and recreational buildings	34.1	36.3	59.3	11.9	21.9	15.7
Churches and other religious buildings	31.3	34.5	46.4	30.1	25.0	27.4
Industrial buildings	298.9	432.9	528.1	322.1	366.9	306.4
Parking garages (open to general public)	13.8	9.3	19.2	15.3	9.8	9.3
Residential garages and carports	58.0	66.5	67.2	53.0	56.8	52.1
Service stations and repair garages	4.3	6.7	5.2	4.8	4.4	4.8
Hospitals and other institutional buildings	86.9	82.8	62.7	51.9	71.6	36.8
Office, bank, and professional buildings	156.7	156.8	222.6	260.8	211.9	104.8
Public works and utilities buildings	25.9	53.1	21.7	74.0	33.2	25.6
Schools and other educational buildings	17.4	15.7	11.7	37.9	12.9	5.5
Stores and other mercantile buildings	207.9	294.4	296.3	158.1	149.0	67.1
Other nonresidential buildings	38.3	45.6	54.6	51.3	43.3	36.7
Structures other than buildings	31.7	32.4	30.8	23.9	22.6	20.5
Housekeeping residential buildings	173.7	197.6	233.1	240.9	235.1	196.6
All other buildings and structures	135.9	165.5	189.1	537.3	412.7	364.6

SOURCE: Bureau of the Census, Special release.

a. Includes only house trailers for which building permits are issued.

TABLE XIV-8. NUMBER AND VALUATION OF NEW HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN: 1972-1981

		Privately owned					
		In structures with					
Year		1 unit	2 units	3 and 4 units	5 units or more	Total	Publicly owned (contract awards)
1972	No. of housing units	42,252	1,434	2,414	29,947	76,047	550
	Valuation ($000)	968,198	23,545	38,528	377,425	1,407,696	10,908
1973	No. of housing units	37,622	1,232	2,288	30,116	71,258	--
	Valuation ($000)	935,621	19,930	39,065	378,694	1,373,310	--
1974	No. of housing units	26,793	864	728	15,806	44,191	100
	Valuation ($000)	714,199	13,759	11,192	227,254	966,405	2,360
1975	No. of housing units	26,885	598	524	8,762	36,769	211
	Valuation ($000)	792,694	10,550	7,633	130,582	941,459	3,903
1976	No. of housing units	33,093	906	729	11,167	45,893	--
	Valuation ($000)	1,059,841	17,059	13,592	173,427	1,263,919	--
1977	No. of housing units	42,265	856	1,000	14,936	59,057	--
	Valuation ($000)	1,516,811	17,530	21,786	256,438	1,812,567	--
1978	No. of housing units	43,323	1,052	1,223	15,412	61,010	--
	Valuation ($000)	1,758,970	23,820	27,362	294,264	2,104,418	--
1979	No. of housing units	33,926	1,046	1,522	12,715	49,209	48
	Valuation ($000)	1,552,062	29,889	36,971	280,931	1,899,854	2,518
1980	No. of housing units	17,870	780	999	9,327	28,976	852
	Valuation ($000)	873,789	25,091	31,094	234,168	1,164,142	--
1981	No. of housing units	11,449	450	874	5,994	18,767	305
	Valuation ($000)	574,559	15,501	26,904	199,928	816,892	--

SOURCE: Bureau of Census, Construction Reports, Permits-Housing Authorized by Building Permits and Public Contracts, 1972 through 1981 (Washington, D.C.: annually), Table 2 (1979).

TABLE XIV-9. NUMBER OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS: 1974-1981

		In structures with				
SMSA	Year	1 unit	2 units	3 and 4 units	5 units or more	Total
Ann Arbor	1974	740	74	4	1,021	1,839
	1975	556	8	0	69	633
	1976	821	4	0	280	1,105
	1977	1,266	18	0	386	1,670
	1978	1,460	16	0	914	2,390
	1979	1,078	30	23	171	1,302
	1980	453	22	4	442	921
	1981	245	26	-	-	271
Battle Creek	1974	424	6	0	61	491
	1975	418	6	0	230	654
	1976	651	10	0	300	961
	1977	554	4	20	267	845
	1978	534	2	44	201	781
	1979	497	18	70	246	831
	1980	273	10	0	409	692
	1981	207	4	8	-	219
Bay City	1974	445	2	4	363	814
	1975	403	6	0	72	481
	1976	458	2	12	350	822
	1977	525	2	0	0	527
	1978	494	6	0	0	500
	1979	309	10	27	0	346
	1980	169	0	0	5	174
	1981	87	0	0	0	87
Detroit	1974	[illegible]	160	259	7,924	18,078
	1975	9,964	74	165	3,801	13,004
	1976	13,070	80	300	4,764	18,214
	1977	18,239	106	471	5,895	24,711
	1978	18,625	100	628	7,056	26,409
	1979	13,645	208	648	5,554	20,050
	1980	5,660	108	465	3,459	9,692
	1981	2,891	56	116	2,397	5,460
Flint	1974	1,450	30	127	341	1,948
	1975	1,206	4	11	264	1,485
	1976	1,447	8	8	398	1,861
	1977	2,067	8	60	1,147	3,282
	1978	2,192	12	19	1,054	3,277
	1979	1,577	32	71	601	2,281
	1980	873	14	16	341	1,244
	1981	465	14	15	137	631
Grand Rapids	1974	2,209	82	40	1,229	3,560
	1975	2,141	184	96	1,006	3,427
	1976	2,325	274	65	1,147	3,811
	1977	2,775	280	58	1,450	4,563
	1978	3,106	438	115	2,173	5,832
	1979	2,554	302	174	1,093	4,123
	1980	1,701	250	58	618	2,627
	1981	1,209	124	194	382	1,909

TABLE XIV-9. NUMBER OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS: 1972-1981 (cont.)

		In structures with				
SMSA	Year	1 unit	2 units	3 and 4 units	5 units or more	Total
Jackson	1974	627	8	11	24	670
	1975	427	4	10	449	890
	1976	612	36	18	250	916
	1977	544	0	3	630	1,177
	1978	529	6	0	128	663
	1979	615	10	7	139	771
	1980	219	6	--	48	273
	1981	163	2	16	--	181
Kalamazoo-Portage	1974	692	82	48	476	1,298
	1975	823	34	43	755	1,655
	1976	937	34	75	926	1,972
	1977	1,271	18	154	1,197	2,640
	1978	1,117	22	111	424	1,674
	1979	996	10	112	750	1,838
	1980	634	34	79	901	1,648
	1981	420	40	151	803	1,414
Lansing-East Lansing	1974	1,486	132	20	805	2,443
	1975	1,266	84	31	484	1,865
	1976	1,620	136	55	698	2,509
	1977	2,144	100	78	1,478	3,800
	1978	2,013	138	130	1,174	3,455
	1979	2,237	122	190	1,437	3,986
	1980	1,302	78	92	734	2,206
	1981	725	58	154	734	1,671
Muskegon-Muskegon Heights-Norton Shores	1974	470	22	12	188	692
	1975	639	0	0	0	639
	1976	662	36	24	441	1,163
	1977	747	6	0	120	873
	1978	852	12	0	309	1,173
	1979	620	10	12	32	674
	1980	405	14	--	384	803
	1981	248	30	36	48	362
Saginaw	1974	793	32	31	318	1,174
	1975	660	66	32	127	885
	1976	776	122	8	135	1,041
	1977	875	112	36	320	1,343
	1978	955	104	16	176	1,251
	1979	708	146	0	396	1,250
	1980	315	48	120	44	527
	1981	158	16	--	64	238

SOURCE: Bureau of the Census, Construction Reports, Permits--Housing Authorized by Building Permits and Public Contracts, 1974 through 1981 (Washington, D.C.: annually), Table 3 (1981).

TABLE XIV-10. VALUATION OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS: 1974-1981

(In thousands of dollars)

SMSA	Year	In structures with 1 unit	2 units	3 and 4 units	5 units or more	Total
Ann Arbor	1974	24,242	1,758	50	13,474	39,523
	1975	20,165	154	0	1,086	21,405
	1976	28,613	58	0	3,507	32,179
	1977	48,267	357	0	7,125	55,749
	1978	65,889	391	0	14,960	81,241
	1979	59,770	1,222	1,039	3,341	65,378
	1980	31,342	939	157	12,852	45,290
	1981	15,337	722	--	--	16,059
Battle Creek	1974	9,307	96	67	762	10,232
	1975	10,436	118	0	1,706	12,259
	1976	18,812	218	0	3,140	22,170
	1977	17,257	85	364	3,112	20,818
	1978	17,561	72	1,981	2,230	21,843
	1979	18,657	585	1,520	3,076	23,839
	1980	11,720	292	0	8,254	20,266
	1981	9,252	88	180	--	9,520
Bay City	1974	9,951	28	50	4,486	14,516
	1975	9,342	123	0	922	10,387
	1976	12,122	30	185	3,299	15,636
	1977	16,049	25	0	0	16,074
	1978	17,251	75	0	0	17,326
	1979	12,774	282	1,119	0	14,175
	1980	6,739	0	0	363	7,103
	1981	3,391	--	--	--	3,391
Detroit	1974	302,828	2,423	4,709	144,601	454,560
	1975	334,864	1,256	2,471	72,278	420,849
	1976	487,264	1,390	6,662	90,723	586,039
	1977	754,541	2,261	11,286	127,298	895,387
	1978	877,358	2,337	14,434	156,342	1,050,469
	1979	730,391	6,134	15,015	138,104	889,645
	1980	344,559	4,225	16,289	90,887	455,960
	1981	183,182	2,140	6,154	102,633	294,109
Flint	1974	36,359	431	1,672	3,245	41,708
	1975	33,005	64	194	2,667	35,929
	1976	40,549	248	96	6,409	47,302
	1977	65,605	283	1,169	12,955	80,011
	1978	80,283	259	444	16,238	97,224
	1979	66,107	1,156	1,936	11,349	80,551
	1980	35,806	375	571	10,020	46,772
	1981	22,321	407	449	2,602	25,780
Grand Rapids	1974	61,648	1,255	552	13,779	77,234
	1975	63,566	3,144	,293	10,231	78,233
	1976	74,150	4,848	1,129	14,664	94,791
	1977	99,326	5,432	905	17,443	123,106
	1978	123,887	9,754	2,325	33,386	169,352
	1979	120,300	8,496	3,865	22,277	154,937
	1980	83,909	8,486	1,477	14,723	108,594
	1981	58,781	4,077	4,818	11,121	78,796

TABLE XIV-10. VALUATION OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN STANDARD METROPODITAN STATISTICAL AREAS: 1974-1981 (cont.)

(In thousands of dollars)

SMSA	Year	In structures with 1 unit	 2 units	 3 and 4 units	 5 units or more	Total
Jackson	1974	13,624	102	145	270	14,140
	1975	9,592	80	167	5,569	15,408
	1976	14,511	476	272	3,738	18,997
	1977	15,648	0	60	7,515	23,223
	1978	17,560	114	0	1,554	19,228
	1979	21,290	186	191	2,566	24,232
	1980	8,399	188	--	959	9,546
	1981	7,599	58	576	--	8,233
Kalamazoo-Portage	1974	19,742	1,150	822	5,747	27,460
	1975	27,097	632	729	8,482	36,940
	1976	32,420	708	1,342	13,346	47,816
	1977	45,280	472	2,762	20,318	68,831
	1978	47,307	403	1,978	6,851	56,540
	1979	46,021	293	2,329	12,568	61,211
	1980	32,597	1,064	2,509	21,916	58,086
	1981	24,407	2,166	5,157	26,052	57,781
Lansing-East Lansing	1974	39,002	2,500	343	11,882	53,726
	1975	38,452	1,705	789	5,762	46,709
	1976	52,967	3,563	1,222	7,996	65,749
	1977	74,916	2,862	2,668	22,066	102,512
	1978	80,384	4,177	3,348	18,593	106,503
	1979	97,525	4,437	5,168	27,911	135,041
	1980	60,507	2,571	3,493	18,502	85,073
	1981	36,172	1,877	3,713	19,526	61,289
Muskegon-Muskegon Heights-Norton Shores	1974	10,290	243	227	1,036	11,796
	1975	15,146	0	0	0	15,146
	1976	16,471	431	360	4,745	22,008
	1977	21,762	95	0	1,000	22,857
	1978	26,935	238	0	5,768	32,940
	1979	23,650	240	175	680	24,745
	1980	17,796	388	0	10,437	28,622
	1981	10,650	890	464	960	12,964
Saginaw	1974	20,619	414	365	3,507	24,905
	1975	19,327	1,204	386	1,595	22,511
	1976	24,027	2,081	108	1,330	27,546
	1977	29,251	1,927	293	6,039	37,510
	1978	35,896	1,946	299	2,139	40,280
	1979	29,803	3,844	0	7,669	41,316
	1980	[illegible] 657	1,384	2,018	1,057	18,115
	1981	7,[illegible]62	539	--	1,234	8,936

SOURCE: Bureau of the Census, Construction Reports, Permits--Housing Authorized by Building Permits and Public Contracts, 1974 through 1981 (Washington, D.C.: annually), Table 3 (1981).

TABLE XIV-11. NUMBER OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED IN PERMIT ISSUING PLACES IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS, INSIDE AND OUTSIDE OF CENTRAL CITIES: 1981

SMSA	In structures with 1 unit	2 units	3 and 4 units	5 units or more	Total
Ann Arbor	245	26	--	--	271
Ann Arbor	41	6	--	--	47
Outside central city	204	20	--	--	224
Battle Creek	207	4	8	--	219
Battle Creek	2	--	--	--	2
Outside central city	205	4	8	--	217
Bay City	87	--	--	--	87
Bay City	7	--	--	--	7
Outside central city	80	--	--	--	80
Detroit	2,891	56	116	2,397	5,460
Detroit	210	--	--	961	1,171
Outside central city	2,681	56	116	1,436	4,289
Flint	465	14	15	137	631
Flint	5	--	--	--	5
Outside central city	460	14	15	137	626
Grand Rapids	1,209	124	194	382	1,909
Grand Rapids	--	--	--	--	--
Outside central city	1,057	104	94	339	1,594
Jackson	163	2	16	--	181
Jackson	--	--	--	--	--
Outside central city	161	2	16	--	179
Kalamazoo-Portage	420	40	151	803	1,414
Kalamazoo	25	--	20	703	748
Portage	74	14	48	--	136
Outside central cities	321	26	83	100	530
Lansing-East Lansing	725	58	154	734	1,671
Lansing	24	--	--	96	120
East Lansing	65	24	44	500	633
Outside central cities	636	34	110	138	918
Muskegon-Muskegon Heights-Norton Shores	248	30	36	48	362
Muskegon	5	--	4	--	9
Muskegon Heights	--	--	--	--	--
Norton Shores	25	--	32	--	57
Outside central cities	218	30	--	48	296
Saginaw	158	16	--	64	238
Saginaw	6	--	--	--	6
Outside central city	152	16	--	64	232

SOURCE: Bureau of the Census, Construction Reports, Permits--Housing Authorized by Building Permits and Public Contracts, 1981 (Washington, D.C.: annually), Table 3.

TABLE XIV-12. ANNUAL CONSTRUCTION CONTRACT AWARDS IN MICHIGAN, 1967-1982, AND THE UNITED STATES, 1978, 1979, 1980, 1981, AND 1982

(In thousands of dollars)

Year	Non-residential	Residential	Total building	Public works and utilities	Total construction
			Michigan		
1967	946,513	1,020,000	1,966,513	357,000	2,323,513
1968	912,849	1,029,581	1,942,430	407,537	2,349,967
1969	962,697	891,531	1,854,228	874,715	2,728,943
1970	955,592	942,760	1,898,352	1,052,245	2,950,597
1971	874,058	1,319,978	2,194,036	840,719	3,034,755
1972	1,010,891	1,596,633	2,607,524	842,780	3,450,304
1973	1,206,481	1,856,354	3,062,835	1,299,276	4,362,111
1974	1,355,623	1,314,147	2,669,770	791,628	3,461,398
1975	951,139	1,089,145	2,040,284	1,146,796	3,187,080
1976	1,115,512	1,470,420	2,585,932	590,478	3,176,410
1977	1,525,733	2,144,489	3,670,222	604,463	4,274,685
1978	1,752,267	2,469,130	4,221,397	1,821,304	6,042,701
1979	1,975,434	2,392,063	4,367,497	889,324	5,156,821
1980	1,970,299	1,535,367	3,505,655	667,944	4,173,610
1981	1,336,850	1,122,958	2,459,808	798,406	3,258,214
1982	1,149,956	856,444	2,006,400	481,218	2,487,618
			United States		
1978	45,045,834	74,949,473	119,995,307	39,934,701	159,930,008
1979	50,205,900	74,557,500	124,763,400	43,682,500	168,445,900
1980	52,491,400	63,667,700	116,159,100	32,233,700	148,392,800
1981	60,087,700	60,164,000	120,251,700	33,227,900	153,479,600
1982	59,207,500	58,076,300	117,283,800	37,335,600	154,619,400

SOURCE: F. W. Dodge Division of McGraw-Hill Information Systems Company, special release.

TABLE XIV-13. NONRESIDENTIAL AND RESIDENTIAL BUILDING AWARDS IN MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS: 1981 AND 1982

(In thousands of dollars)

Area	Nonresidential		Residential		Total	
	1981	1982	1981	1982	1981	1982
Ann Arbor	55,692	72,400	32,917	19,267	88,609	91,667
Battle Creek	16,130	48,764	14,210	10,430	30,340	59,194
Bay City	9,731	7,736	6,409	7,845	16,140	15,581
Detroit	727,472	511,253	328,102	316,754	1,055,574	828,007
Flint	40,119	44,169	35,940	26,081	76,059	70,250
Grand Rapids	126,207	124,288	123,956	78,119	250,163	202,407
Jackson	18,797	7,309	17,118	8,851	35,915	16,160
Kalamazoo-Portage	45,836	135,950	81,967	32,483	127,803	168,433
Lansing-E. Lansing	60,175	46,929	93,549	41,868	153,724	88,797
Muskegon-Muskegon Heights-Norton Shores	14,396	23,981	23,413	14,321	37,809	38,302
Saginaw	16,371	22,167	21,616	15,896	37,987	38,063
Toledo	150,857	139,626	134,276	99,251	285,133	238,877
Michigan	1,336,850	1,149,956	1,122,958	856,444	2,459,808	2,006,400
United States	60,087,700	59,207,500	60,164,000	58,076,300	120,251,700	117,283,800

SOURCE: F. W. Dodge Division of McGraw-Hill Information Systems Company, news release.

TABLE XIV-14. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1980, 1981 AND PREMININARY 1982

		Residential		Industial[a]		Offices[b]		Mercantile[c]	
County	Year	Number of dwellings	Value ($1000)	Number of buildings	Value ($1000)	Number of buildings	Value ($1000)	Number of buildings	Value ($1000)
Alcona	1980	62	2,250	0	0	0	0	0	0
	1981	53	1,929	0	0	0	0	0	0
	1982	34	1,114	0	0	0	0	0	0
Alger	1980	39	1,482	0	0	0	0	11	1,053
	1981	30	1,226	0	0	0	0	12	1,079
	1982	20	843	0	0	0	0	12	894
Allegan	1980	225	7,482	17	501	1	10	6	1,005
	1981	175	10,281	16	871	4	506	14	479
	1982	100	3,243	5	92	0	0	1	75
Alpena	1980	74	3,187	1	65	0	0	7	755
	1981	92	2,731	8	252	0	0	4	4,705
	1982	52	1,561	0	0	0	0	3	177
Antrim	1980	186	7,496	3	147	3	164	5	302
	1981	182	6,683	2	44	0	0	1	15
	1982	161	5,701	1	110	0	0	2	1,106
Arenac	1980	51	1,350	1	39	2	275	2	130
	1981	37	1,000	0	0	0	0	0	0
	1982	38	1,058	0	0	0	0	0	0
Baraga	1980	20	592	3	171	0	0	1	2
	1981	21	541	1	16	0	0	0	0
	1982	16	248	0	0	0	0	0	0
Barry	1980	188	6,388	1	50	2	1,671	2	181
	1981	114	4,127	1	4	1	10	4	31
	1982	139	6,146	2	245	0	0	1	1
Bay	1980	174	7,103	6	6,799	3	318	7	347
	1981	92	3,634	4	97	8	662	15	1,664
	1982	54	1,792	5	1,189	5	503	2	46
Benzie	1980	83	2,574	0	0	1	426	1	15
	1981	110	2,810	0	0	0	0	1	5
	1982	87	2,263	0	0	0	0	0	0
Berrien	1980	240	10,253	29	2,152	2	448	18	2,190
	1981	447	12,482	17	6,300	7	1,651	10	967
	1982	186	5,021	7	4,234	11	2,587	11	960

TABLE XIV-14. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1980, 1981 AND PRELIMINARY 1982 (cont.)

		Residential		Industrial[a]		Offices[b]		Mercantile[c]	
County	Year	Number of dwellings	Value ($1000)	Number of buildings	Value ($1000)	Number of buildings	Value ($1000)	Number of buildings	Value ($1000)
Eaton	1980	358	15,653	14	10,286	14	3,639	10	2,106
	1981	243	9,863	4	3,030	4	1,676	7	1,797
	1982	157	7,162	2	604	3	685	14	2,042
Emmet	1980	259	11,599	3	382	2	982	2	152
	1981	176	10,981	4	135	0	0	3	287
	1982	147	6,921	4	128	0	0	0	0
Genesee	1980	831	34,759	13	6,538	38	4,415	58	16,002
	1981	505	21,080	15	6,656	38	6,800	65	9,675
	1982	258	13,437	7	1,710	37	3,957	33	5,348
Gladwin	1980	188	8,434	0	0	1	30	35	7,078
	1981	131	6,261	0	0	1	511	2	206
	1982	87	4,339	0	0	3	2,188	1	198
Gogebic	1980	41	1,219	1	89	1	600	1	50
	1981	47	1,852	0	0	2	148	2	1,022
	1982	36	1,091	0	0	1	200	0	0
Grand Traverse	1980	758	26,124	16	2,400	19	1,798	5	388
	1981	535	17,681	6	1,599	12	2,287	16	611
	1982	282	10,601	6	497	7	914	12	1,676
Gratiot	1980	171	5,273	9	944	4	337	1	60
	1981	54	2,152	5	661	3	403	2	18
	1982	22	763	2	258	0	0	1	35
Hillsdale	1980	159	3,125	1	75	9	231	2	72
	1981	48	1,277	2	387	3	89	0	0
	1982	73	1,712	0	0	1	160	1	7
Houghton	1980	311	7,594	2	283	1	65	17	1,076
	1981	54	1,858	3	2,379	3	287	7	1,205
	1982	40	1,389	1	30	0	0	0	0
Huron	1980	107	3,630	3	610	3	386	11	933
	1981	101	3,518	2	372	1	46	2	4,100
	1982	36	1,152	0	0	1	22	1	16
Ingham	1980	1,452	53,756	9	1,241	12	3,901	43	8,746
	1981	1,196	41,268	8	2,018	7	5,292	18	7,456
	1982	398	17,315	6	4,147	16	17,595	33	2,383

TABLE XIV-14. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1980, 1981 AND PRELIMINARY 1982 (cont.)

County	Year	Residential: Number of dwellings	Residential: Value ($1000)	Industrial[a]: Number of buildings	Industrial[a]: Value ($1000)	Offices[b]: Number of buildings	Offices[b]: Value ($1000)	Mercantile[c]: Number of buildings	Mercantile[c]: Value ($1000)
Ionia	1980	98	4,400	10	350	3	150	3	2,323
	1981	68	3,656	7	346	3	281	0	0
	1982	115	3,494	4	219	4	214	17	287
Iosco	1980	98	3,081	6	285	2	95	6	122
	1981	67	2,672	4	351	3	321	4	207
	1982	93	2,252	6	183	1	8	3	99
Iron	1980	31	1,179	5	167	0	0	0	0
	1981	15	561	2	13	1	375	0	0
	1982	12	468	0	0	0	0	0	0
Isabella	1980	130	5,147	2	42	3	94	4	723
	1981	99	3,657	5	783	13	2,813	8	421
	1982	154	4,352	4	112	1	50	7	411
Jackson	1980	273	9,546	8	454	6	1,069	19	2,212
	1981	184	8,275	4	351	12	3,318	12	1,135
	1982	237	6,956	5	77	5	353	13	455
Kalamazoo	1980	1,443	50,767	13	1,609	20	5,170	84	8,338
	1981	1,247	52,470	24	39,760	21	3,910	46	6,330
	1982	406	17,313	9	26,088	22	3,316	31	3,304
Kalkaska	1980	130	2,859	9	504	3	522	5	458
	1981	85	2,661	9	396	6	705	4	364
	1982	81	2,020	4	82	2	158	2	233
Kent	1980	1,847	79,019	76	41,326	37	9,914	52	7,471
	1981	1,130	52,348	61	27,426	22	9,372	39	6,367
	1982	1,133	47,607	42	54,541	20	5,376	27	3,990
Keweenaw	1980	12	343	0	0	0	0	0	0
	1981	9	231	0	0	0	0	0	0
	1982	0	0	0	0	0	0	0	0
Lake	1980	68	2,405	0	0	1	70	0	0
	1981	81	3,627	0	0	0	0	1	202
	1982	61	2,691	0	0	0	0	0	0
Lapeer	1980	324	12,612	1	14	8	1,006	11	803
	1981	147	6,840	5	502	3	399	6	203
	1982	84	3,628	5	356	2	385	4	318

TABLE XIV-14. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1980, 1981 AND PRELIMINARY 1982 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($1000)	Number of buildings	Value ($1000)	Number of buildings	Value ($1000)	Number of buildings	Value ($1000)
Leelanau	1980	174	7,363	1	15	0	0	1	6
	1981	144	5,946	1	20	4	6,492	3	6,421
	1982	106	5,327	1	125	2	31	2	8
Lenawee	1980	190	7,343	6	875	5	2,363	13	402
	1981	381	13,570	2	1,008	7	3,444	14	6,440
	1982	50	1,595	2	72	3	128	2	104
Livingston	1980	523	28,192	18	11,862	9	1,266	14	1,507
	1981	263	16,635	12	2,726	5	505	11	5,536
	1982	129	8,250	13	2,279	4	720	4	669
Luce	1980	19	461	0	0	1	80	1	230
	1981	9	207	0	0	0	0	2	350
	1982	6	216	0	0	0	0	1	9
Mackinac	1980	68	1,168	2	519	1	180	0	0
	1981	95	1,365	2	933	0	0	1	50
	1982	0	0	0	0	0	0	0	0
Macomb	1980	1,914	74,829	82	26,779	29	5,455	46	11,368
	1981	1,140	46,065	38	26,411	34	4,676	63	12,835
	1982	939	35,594	26	7,946	14	3,968	35	5,596
Manistee	1980	98	2,831	6	807	2	499	2	200
	1981	85	2,381	9	3,665	0	0	2	139
	1982	61	1,432	1	48	0	0	0	0
Marquette	1980	113	3,802	3	142	3	104	4	222
	1981	88	3,188	1	224	0	0	10	663
	1982	100	2,248	1	7	2	237	5	210
Mason	1980	138	5,121	9	546	2	305	4	384
	1981	99	2,603	3	3,890	0	0	3	129
	1982	176	3,964	2	34	0	0	2	26
Mecosta	1980	144	5,941	0	0	2	225	0	0
	1981	99	4,535	1	200	0	0	0	0
	1982	79	2,880	1	10	1	62	0	0
Menominee	1980	195	6,322	3	219	0	0	13	124
	1981	58	1,649	5	725	1	182	5	62
	1982	59	1,386	1	4	0	0	1	20

TABLE XIV-14. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1980, 1981 AND PRELIMINARY 1982 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($1000)	Number of buildings	Value ($1000)	Number of buildings	Value ($1000)	Number of building	Value ($1000)
Midland	1980	406	14,547	3	170	3	240	3	245
	1981	1,211	12,324	2	222	3	223	0	0
	1982	133	6,789	0	0	0	0	2	64
Missaukee	1980	77	2,013	2	38	2	204	3	79
	1981	97	2,520	0	0	1	90	0	0
	1982	38	999	1	12	1	40	2	95
Monroe	1980	240	11,830	7	2,710	4	1,147	7	489
	1981	149	7,967	6	911	4	1,138	7	1,299
	1982	166	6,445	11	5,866	4	323	7	495
Montcalm	1980	138	4,671	4	515	0	0	3	85
	1981	182	5,644	6	754	1	100	3	410
	1982	158	4,765	5	558	1	97	6	202
Motmorency	1980	70	2,974	1	264	2	679	2	312
	1981	64	3,108	2	761	1	399	1	202
	1982	39	1,933	1	373	1	729	0	0
Muskegon	1980	659	23,537	23	4,529	11	1,915	9	1,879
	1981	283	9,635	17	3,008	8	1,158	11	1,340
	1982	148	6,505	16	674	3	137	2	309
Newaygo	1980	128	3,746	2	143	2	1,584	2	140
	1981	116	2,789	2	287	0	0	8	913
	1982	140	3,744	0	0	1	48	7	94
Oakland	1980	4,110	228,809	126	108,789	94	83,427	105	24,065
	1981	1,844	137,252	88	31,975	79	115,986	88	15,665
	1982	1,639	85,411	62	20,252	50	33,863	52	8,553
Oceana	1980	145	5,113	3	562	2	97	4	88
	1981	82	3,429	3	355	3	255	2	16
	1982	118	4,715	0	0	3	88	0	0
Ogemaw	1980	157	5,339	0	0	3	249	2	100
	1981	104	4,915	2	420	2	135	7	282
	1982	76	3,798	3	65	3	112	6	392
Ontonagon	1980	47	1,465	2	3,700	1	300	1	10
	1981	30	973	1	78,000	1	48	0	0
	1982	1	25	0	0	1	25	0	0

TABLE XIV-14. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1980, 1981 AND PRELIMINARY 1982 (cont.)

County	Year	Residential		Industrial[a]		Offices[b]		Mercantile[c]	
		Number of dwellings	Value ($1000)	Number of buildings	Value ($1000)	Number of buildings	Value ($1000)	Number of building	Value ($1000)
Osceola	1980	90	2,261	4	435	3	561	2	52
	1981	99	2,790	7	787	2	150	0	0
	1982	38	960	0	0	0	0	3	77
Oscoda	1980	67	2,944	0	0	1	399	1	156
	1981	45	2,191	0	0	1	541	0	0
	1982	45	2,251	0	0	0	0	0	0
Otsego	1980	201	7,753	5	564	0	0	2	1,171
	1981	112	5,114	3	142	0	0	1	1,218
	1982	108	4,313	0	0	1	70	1	15
Ottawa	1980	780	29,574	34	26,846	14	4,663	12	1,856
	1981	779	26,448	21	10,041	6	3,132	34	2,813
	1982	353	15,146	22	2,885	7	462	32	1,558
Presque Isle	1980	86	3,331	1	320	1	166	0	0
	1981	57	2,410	0	0	0	0	2	592
	1982	94	3,094	0	0	0	0	1	100
Roscommon	1980	234	6,352	1	7	0	0	7	139
	1981	116	3,417	4	47	3	86	5	235
	1982	96	2,709	0	0	2	340	5	68
Saginaw	1980	527	18,115	10	4,506	22	5,072	26	2,663
	1981	243	9,134	14	729	20	3,467	17	1,026
	1982	180	4,731	1	60	4	707	12	1,608
St Clair	1980	650	23,186	24	8,942	10	3,170	7	1,534
	1981	185	8,238	16	2,911	4	278	10	2,072
	1982	178	6,535	9	1,435	9	719	7	419
St. Joseph	1980	351	9,590	16	2,662	4	176	6	775
	1981	133	5,133	7	1,131	1	25	10	2,014
	1982	67	2,486	3	46	2	344	3	40
Sanilac	1980	157	5,401	2	450	6	595	11	1,873
	1981	103	3,952	1	120	1	84	8	536
	1982	50	1,876	0	0	0	0	6	423
School-craft	1980	41	866	0	0	1	132	0	0
	1981	31	636	0	0	1	9	1	320
	1982	64	1,284	1	38	1	30	0	0

TABLE XIV-14. RESIDENTIAL, INDUSTRIAL, OFFICE, AND MERCANTILE CONSTRUCTION AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN MICHIGAN, BY COUNTY: 1980, 1981 AND PRELIMINARY 1982 (cont.)

		Residential		Industrial[a]		Offices[b]		Mercantile[c]	
County	Year	Number of dwellings	Value ($1000)	Number of buildings	Value ($1000)	Number of buildings	Value ($1000)	Number of buildings	Value ($1000)
Shiawassee	1980	413	12,686	4	411	1	50	0	0
	1981	126	4,700	3	45	1	66	2	472
	1982	55	2,376	3	333	0	0	0	0
Tuscola	1980	116	4,894	2	129	1	60	5	1,068
	1981	134	4,907	2	315	3	159	2	135
	1982	68	2,816	2	622	1	30	2	113
Van Buren	1980	205	7320	4	908	2	500	7	966
	1981	167	5,311	2	1,834	4	257	1	1,500
	1982	25	983	1	20	0	0	0	0
Washtenaw	1980	921	45,468	13	6,092	15	4,496	14	2,756
	1981	275	20,591	14	5,361	15	5,783	14	2,871
	1982	209	17,524	17	3,807	6	7,042	9	1,883
Wayne	1980	2,179	88,699	77	25,676	57	96,150	107	24,894
	1981	1,887	79,359	54	19,341	38	15,095	88	16,539
	1982	1,776	83,561	40	159,237	19	12,776	65	14,704
Wexford	1980	89	2,643	5	21	1	90	0	0
	1981	58	2,068	4	2,148	5	865	2	702
	1982	52	1,441	0	0	0	0	1	88
MICHIGAN	1980	29,091	1,167,335	789	322,051	542	260,778	934	158,144
	1981	18,917	821,809	634	366,920	459	211,922	787	148,963
	1982	13,282	554,637	396	306,449	295	104,814	549	67,109

SOURCE: Bureau of the Census, special release.

a. Includes plants processing, producing, and assembling goods and materials together with affiliated buildings such as warehouses, garages, and administrative buildings. Newspaper and printing plants, central bakeries, laundry and dry cleaning plants, and ice plants fall within this definition.

b. Includes banks and professional buildings. Also the administration buildings of labor unions, chambers of commerce, and trade associations, and public administration buildings such as post offices, court houses, city halls, and federal offices.

c. Includes buildings used in buying, selling, distributing, and storing merchandise and materials or performing consumer services, that is, stores, auto and other showrooms, commercial warehouses, grain elevators, garages for storing commercial vehicles, restaurants, taverns, night clubs, bakery shops, laundry and dry cleaning shops, laundromats, frozen food lockers, beauty and barber shops, and animal hospcials.

XV. MANUFACTURING

The ranking of Michigan counties according to the relative importance of manufacturing (Table XV-7) was developed on the basis of personal income accounts and employment statistics prepared by the Bureau of Economic Analysis, U.S. Department of Commerce. Personal income is discussed in the narrative material introducing chapter VI. By and large, the BEA income and employment statistics for manufacturing are consistent with the employment figures released by the Michigan Employment Security Commission since they are based on the same monthly reports from employers.

The production of motor vehicles is of special interest because of the great importance of this industry to Michigan. The Automobile Manufacturers Association publishes a wealth of information on the industry, and Automotive News and Ward's Communications, Inc., in Detroit are leading sources of regional statistics about the industry. R.L. Polk & Company, also in Detroit, compiles information about new car and truck sales and registrations. Some of these data are reproduced in chapter XVI.

Current Industrial Reports, published by the Bureau of the Census, contains current information about production and shipments of a great variety of manufactured items. A few of the series give details by states.

The American Iron and Steel Institute monitors monthly steel production in the United States and Various centers. Its Annual Statistics Report and Iron and Steel Works Directory for the United States and Canada provide detailed information on the steel industry.

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		Residential		Industrial[a]		Offices[b]		Mercantile[c]	
County	Year	Number of dwellings	Value ($1000)	Number of buildings	Value ($1000)	Number of buildings	Value ($1000)	Number of buildings	Value ($1000)
Branch	1980	84	2,287	1	545	0	0	6	4,227
	1981	87	2,358	3	121	0	0	5	101
	1982	26	769	0	0	0	0	0	0
Calhoun	1980	504	13,878	9	1,254	15	3,274	18	2,781
	1981	105	5,393	4	4,406	7	1,029	10	554
	1982	46	1,701	4	121	2	759	12	1,937
Cass	1980	243	8,227	2	111	0	0	2	326
	1981	115	3,741	1	18	0	0	1	2
	1982	29	1,154	4	221	0	0	0	0
Charlevoix	1980	80	3,006	0	0	0	0	9	4,495
	1981	147	7,393	0	0	1	100	1	141
	1982	89	4,249	0	0	0	0	3	977
Cheboygan	1980	121	5,121	1	324	3	1,113	2	404
	1981	69	3,222	0	0	0	0	6	1,214
	1982	62	3,099	9	3,355	1	729	1	198
Chippewa	1980	12	391	3	264	0	0	1	994
	1981	9	299	1	5	4	226	1	33
	1982	6	206	0	0	1	226	3	170
Clare	1980	141	3,929	0	0	0	0	2	404
	1981	122	4,349	0	0	2	1,083	3	607
	1982	72	2,864	2	745	2	1,271	1	198
Clinton	1980	298	11,264	2	144	3	2	8	1,100
	1981	164	6,501	11	1,640	4	2,451	9	9,306
	1982	113	4,838	1	13	0	0	5	360
Crawford	1980	106	2,550	0	0	0	0	3	69
	1981	126	3,357	18	6,462	0	0	3	112
	1982	45	1,516	1	80	1	28	2	57
Delta	1980	125	4,099	3	695	2	191	7	216
	1981	123	4,234	2	393	3	165	5	484
	1982	141	4,768	2	204	0	0	4	581
Dickinson	1980	45	1,113	1	52	1	15	1	3
	1981	102	3,628	20	59,677	1	150	0	0
	1982	35	1,707	0	0	0	0	3	628

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TABLE XV-1. AVERAGE WAGE AND SALARY EMPLOYMENT AND WEEKLY HOURS AND EARNINGS OF PRODUCTION WORKERS IN MICHIGAN AND THE UNITED STATES MANUFACTURING ESTABLISHMENTS: 1956-1982

	Michigan				United States			
	Employment	Weekly		Hourly	Employment	Weekly		Hourly
Year	(000)	Hours	Earnings	earnings	(000)	Hours	Earnings	earnings
1956	1,199.7	40.8	94.98	2.33	17,243	40.4	78.78	1.95
1957	1,154.0	40.0	97.64	2.44	17,174	39.8	81.19	2.04
1958	1,007.4	39.5	99.70	2.52	15,945	39.2	82.32	2.10
1959	952.8	40.9	108.71	2.66	16,675	40.3	88.26	2.19
1960	967.6	40.8	112.00	2.75	16,796	39.7	89.72	2.26
1961	879.4	40.1	112.32	2.80	16,326	39.8	92.34	2.32
1962	943.7	41.8	121.43	2.91	16,853	40.4	96.56	2.39
1963	980.0	42.5	128.27	3.02	16,995	40.5	99.23	2.45
1964	1,022.8	43.5	135.11	3.11	17,274	40.7	102.97	2.53
1965	1,102.6	44.6	143.79	3.22	18,062	41.2	107.53	2.61
1966	1,169.0	43.3	145.10	3.35	19,214	41.4	112.19	2.71
1967	1,138.5	42.0	145.78	3.47	19,447	40.6	114.49	2.82
1968	1,162.0	43.3	164.15	3.79	19,781	40.7	122.51	3.01
1969	1,192.8	42.0	166.78	3.97	20,167	40.6	129.51	3.19
1970	1,081.1	40.6	168.33	4.15	19,367	39.8	133.33	3.35
1971	1,059.2	41.0	188.19	4.59	18,623	39.9	142.44	3.57
1972	1,097.4	42.8	211.52	4.94	19,151	40.5	154.71	3.82
1973	1,178.8	43.4	228.63	5.27	20,154	40.7	166.46	4.09
1974	1,114.0	41.2	232.19	5.63	20,077	40.0	176.80	4.42
1975	983.7	40.8	250.76	6.15	18,323	39.5	190.79	4.83
1976	1,061.7	42.7	290.97	6.81	18,997	40.1	209.32	5.22
1977	1,128.4	43.3	326.27	7.54	19,682	40.3	228.90	5.68
1978	1,179.6	43.0	349.50	8.13	20,505	40.4	249.27	6.17
1979	1,160.1	41.2	359.72	8.73	21,040	40.2	269.34	6.70
1980	998.9	40.1	381.87	9.52	20,285	39.7	288.62	7.27
1981	979.0	40.5	426.27	10.53	20,173	39.8	318.00	7.99
1982	874.1	40.2	449.33	11.18	18,848	38.9	330.65	8.50

SOURCE: Michigan Employment Security Commission Special release, and Bureau of Labor Statistics, Employment and Earnings, (Washington, D.C.: Monthly), March 1983, Tables B-1 and C-1.

TABLE XV-2. EARNINGS IN MANUFACTURING ESTABLISHMENTS LOCATED IN MICHIGAN, AND THE UNITED STATES BY MAJOR INDUSTRY GROUP: 1976 AND 1981

(In thousands of dollars)

Industry group		1976[a]	1981[a]
Food & kindred products	Michigan	672,696	931,795
	U.S.	19,610,000	28,983,000
Textile mill products	Michigan	43,620	41,561
	U.S.	8,073,000	10,615,000
Apparel & other fabricated textile products	Michigan	308,885	386,183
	U.S.	9,550,000	13,006,000
Paper & allied products	Michigan	336,521	424,520
	U.S.	9,167,000	14,530,000
Printing, publishing, & allied products	Michigan	391,469	576,868
	U.S.	13,008,000	21,395,000
Chemicals & allied products	Michigan	764,086	1,083,682
	U.S.	16,100,000	26,287,000
Petroleum refining & related industries	Michigan	46,250	67,557
	U.S.	3,485,000	5,972,000
Rubber & miscellaneous plastic products	Michigan	314,196	570,804
	U.S.	7,188,000	12,441,000
Leather and leather products	Michigan	35,731	50,941
	U.S.	2,024,000	2,739,000
TOTAL nondurable goods	Michigan	2,913,520	4,133,919
	U.S.	89,044,000	137,425,000
Lumber & wood products excl. furniture	Michigan	123,558	180 484
	U.S.	6,917,000	9,978,000
Furniture & fixtures	Michigan	251,047	460,157
	U.S.	4,098,000	6,266,000
Primary metal industries	Michigan	1,532,076	1,888,294
	U.S.	18,118,000	27,838,000
Fabricated metal products	Michigan	1,893,110	2,522,034
	U.S.	19,481,000	30,540,000
Machinery, except electrical	Michigan	2,176,103	3,798,992
	U.S.	29,024,000	53,311,000
Electrical machinery	Michigan	525,126	709,455
	U.S.	22,195	40,072,000
Transportation equipment excl. motor vehicle	Michigan	176,431	377,934
	U.S.	13,771,000	26,453,000
Motor vehicles & equipment	Michigan	7,305,611	9,778,613
	U.S.	15,165,000	20,726,000
Stone, glass, and clay	Michigan	303,041	409,904
	U.S.	8,058,000	12,194,000
Instruments	Michigan	128,489	239,944
	U.S.	7,401,000	14,401,000
Miscellaneous manufacturing	Michigan	101,532	127,383
	U.S.	4,151,000	5,939,000
TOTAL durable goods	Michigan	14,516,124	20,493,194
	U.S.	148,379,000	247,718,000
TOTAL manufacturing	Michigan	17,429,644	24,627,113
	U.S.	237,423,000	385,143,000

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

a: Estimates based on 1972 Standard Industrial Classification. Estimates have been revised to reflect the 1980 Comprehensive NIPA Revisions.

TABLE XV-3. HOURS AND EARNINGS FOR PRODUCTION WORKERS IN MANUFACTURING, SELECTED MICHIGAN LABOR MARKET AREAS: 1980-1982

Area	Average weekly earnings			Average weekly hours			Average hourly earnings		
	1980	1981	1982	1980	1981	1982	1980	1981	1982
Ann Arbor	$401.95	$470.58	$482.35	39.9	42.2	41.6	$ 10.07	$ 11.14	$ 11.61
Battle Creek	377.42	423.38	452.89	40.4	40.9	39.4	9.34	10.36	11.49
Bay City	347.94	378.54	388.32	40.7	40.7	40.2	8.55	9.31	9.67
Detroit	418.56	457.16	488.68	41.1	41.0	41.2	10.18	11.15	11.85
Flint	443.30	492.59	519.09	41.1	40.6	39.6	10.79	12.14	13.10
Grand Rapids	315.68	347.83	364.49	39.9	39.8	38.9	7.91	8.73	9.37
Jackson	354.44	399.24	399.25	42.1	43.0	40.5	8.42	9.27	9.80
Kalamazoo-Portage	346.92	401.30	402.68	40.0	40.3	39.5	8.67	9.97	10.20
Lansing-East Lansing	385.37	470.22	478.19	37.8	39.0	39.1	10.20	12.07	12.24
Muskegon-Muskegon Heights-Norton Shores	333.94	360.32	371.07	40.2	40.3	38.3	8.31	8.95	9.69
Saginaw	424.49	497.31	502.65	39.4	40.4	39.3	10.77	12.31	12.80
Michigan	381.87	426.27	449.33	40.1	40.5	40.2	9.52	10.53	11.18

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics Employment and Earnings (Washington, D.C.: monthly).

NOTE: Dollar figures include cash earnings, before payroll deductions, and exclude fringe benefits such as company paid health and welfare premiums and employer contributions to Social Security Trust Funds.

TABLE XV-4. HOURS AND EARNINGS OF MANUFACTURING PRODUCTION WORKERS IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY GROUP: 1982

	Michigan			United States		
Industry group	Average weekly hours	Average hourly earnings	Average weekly earnings	Average weekly hours	Average hourly earnings	Average weekly earnings
Durable goods	40.1	$ 11.63	$ 466.43	39.3	$ 9.05	$ 355.67
Lumber and wood products	37.9	5.85	259.95	38.0	7.50	285.00
Furniture and fixtures	38.2	8.20	313.44	37.3	6.32	235.74
Primary metal products	39.5	12.22	483.32	38.6	11.33	437.18
Fabricated metal products	39.0	10.76	419.33	39.2	8.78	344.18
Nonelectrical machinery	40.2	11.38	457.29	39.6	9.28	367.49
Electrical machinery	39.8	9.68	385.16	39.3	8.17	321.08
Transportation equipment	40.9	12.79	522.71	40.5	11.12	450.36
Motor vehicle and equipment	40.7	12.92	525.41	40.5	11.60	469.80
Nondurable goods	40.5	9.50	384.33	38.4	7.73	296.83
Food and kindred products	41.4	9.47	392.47	39.5	7.89	311.66
Textile mill products & apparel	40.5	11.27	456.17	37.5	5.83	218.63
Paper and allied products	43.6	9.96	434.30	41.8	9.32	389.58
Printing and publishing	37.2	9.02	335.31	37.0	8.73	323.01
Chemicals and allied products	40.7	10.38	422.20	40.9	9.98	408.18
TOTAL	40.2	11.18	449.33	38.9	8.50	330.65

SOURCE: Bureau of Labor Statistics, Employment and Earnings (Washington, D.C.: March 1983), vol. 30, no. 3, Table C-2; and Michigan Employment Security Commission, special release.

TABLE XV-5. WEEKLY HOURS OF MANUFACTURING PRODUCTION WORKERS IN MICHIGAN AND THE UNITED STATES, MONTHLY: 1970-1982

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual average
Michigan													
1970	40.8	39.6	40.5	40.2	41.1	42.6	41.1	40.4	39.4	40.0	40.2	41.0	40.6
1971	41.7	41.6	41.0	39.4	41.3	41.9	40.0	40.1	38.7	41.4	41.4	43.4	41.0
1972	41.3	41.6	41.9	42.3	42.5	42.9	42.5	42.1	43.4	43.3	43.7	45.2	42.8
1973	43.7	44.1	43.4	44.6	43.8	44.0	43.4	41.9	43.0	43.1	42.1	43.5	43.4
1974	40.9	40.8	41.2	38.6	41.8	41.9	41.8	41.5	42.2	42.2	40.2	41.8	41.2
1975	39.8	39.5	39.4	39.8	39.7	40.3	40.7	40.8	41.6	41.0	41.1	44.4	40.7
1976	41.3	42.2	42.6	40.7	43.1	43.7	43.2	42.6	43.0	42.0	43.7	44.1	42.7
1977	42.2	42.0	43.2	43.2	43.6	44.1	43.5	42.5	43.5	43.2	43.4	45.2	43.3
1978	41.8	41.6	42.5	42.8	42.6	42.9	42.9	42.5	43.4	43.5	43.6	45.9	43.0
1979	42.5	42.9	43.1	37.3	42.2	41.8	41.1	40.5	40.6	41.0	39.2	42.0	41.2
1980	39.9	39.8	40.2	39.6	39.4	39.4	39.0	39.4	40.0	40.9	40.8	42.3	40.1
1981	41.1	39.2	41.1	40.8	41.8	41.8	40.3	40.6	38.6	40.3	39.7	40.5	40.5
1982	38.8	40.1	39.9	40.4	40.9	41.6	40.6	40.1	38.2	39.8	40.7	41.3	40.2
United States													
1970	40.0	39.8	40.0	39.7	39.8	40.1	39.9	39.8	39.6	39.6	39.7	39.9	39.8
1971	39.5	39.3	39.7	39.4	39.9	40.2	39.8	39.8	39.7	40.0	40.2	40.6	39.9
1972	39.8	40.0	40.3	40.5	40.5	40.8	40.4	40.6	40.9	40.8	40.9	41.1	40.5
1973	39.9	40.5	40.7	40.7	40.7	40.9	40.6	40.5	41.0	40.7	40.9	41.2	40.7
1974	40.0	40.1	40.2	39.1	40.3	40.4	40.0	40.1	40.3	40.1	39.7	39.9	40.0
1975	38.7	38.5	38.7	38.9	39.0	39.5	39.2	39.7	40.2	40.0	40.1	40.9	39.5
1976	40.0	40.0	40.1	39.2	40.3	40.5	40.1	40.1	40.1	40.1	40.3	40.7	40.1
1977	39.1	39.9	40.2	40.1	40.4	40.8	40.1	40.3	40.7	40.6	40.7	41.1	40.3
1978	39.2	39.6	40.4	40.4	40.4	40.8	40.3	40.4	40.7	40.6	40.9	41.4	40.4
1979	40.1	40.2	40.6	38.9	40.1	40.4	39.9	40.0	40.3	40.3	40.4	40.9	40.2
1980	39.8	39.8	39.8	39.4	39.3	39.4	38.8	39.4	39.8	39.8	40.2	40.8	39.7
1981	39.9	39.5	39.9	39.7	40.1	40.2	39.6	39.9	39.5	39.7	39.7	39.9	39.8
1982	37.1	39.2	39.1	38.7	39.0	39.3	38.9	39.0	38.9	39.0	39.3	39.7	38.9

SOURCE: Michigan Employment Security Commission, special release and Bureau of Labor Statistics, Employment and Earnings (Washington, D.C.: monthly), Table C-1.

TABLE XV-6. WEEKLY EARNINGS OF MANUFACTURING PRODUCTION WORKERS IN MICHIGAN AND THE UNITED STATES, MONTHLY: 1970-1982

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual average
						Michigan							
1970	167.85	160.97	166.25	165.26	171.02	178.54	170.28	167.09	165.83	161.64	162.97	179.58	168.33
1971	187.86	188.78	186.71	179.98	189.07	192.45	182.24	182.21	178.33	190.69	190.69	208.36	180.19
1972	199.36	201.43	204.22	206.76	207.95	209.09	214.03	206.29	215.26	215.24	219.64	234.09	211.52
1973	225.67	228.97	223.55	232.95	228.07	230.43	227.24	218.13	226.44	228.30	223.34	235.86	229.63
1974	220.53	220.52	223.96	206.93	231.70	235.44	235.63	234.89	244.68	248.09	234.65	247.33	232.03
1975	230.80	229.38	233.05	237.17	238.08	245.19	249.78	252.51	261.62	261.79	262.96	291.71	290.18
1976	270.80	278.94	284.99	267.03	292.61	298.56	292.64	290.70	299.28	289.29	302.93	323.83	290.97
1977	308.48	302.02	318.30	318.21	322.99	330.66	327.34	318.33	331.43	338.39	339.78	356.85	326.27
1978	326.92	323.23	336.22	340.52	340.33	344.23	345.86	340.26	361.00	367.92	371.25	394.24	349.50
1979	363.89	369.71	374.54	320.15	369.50	363.74	361.15	348.75	354.80	365.15	347.82	380.77	359.72
1980	362.17	365.20	375.50	367.60	362.24	369.57	369.25	371.18	386.55	407.85	407.46	432.00	381.87
1981	419.01	398.14	422.52	420.88	437.09	441.60	423.64	426.77	413.31	438.41	431.40	443.67	426.27
1982	425.24	440.32	443.43	449.72	460.08	472.97	461.20	447.94	431.09	441.31	454.00	466.11	449.33
						United States							
1970	131.60	130.54	132.40	131.80	132.93	134.34	134.06	133.73	135.04	133.45	134.58	138.05	133.33
1971	137.86	137.94	139.74	139.48	141.65	143.51	142.09	142.09	143.32	144.00	145.12	150.22	142.44
1972	148.06	149.20	151.13	153.09	153.50	155.04	153.52	155.09	158.69	158.30	159.92	163.58	154.71
1973	159.60	161.60	162.80	164.02	164.84	166.05	166.05	165.65	170.15	169.31	171.37	174.69	166.46
1974	169.60	170.02	171.25	166.96	175.71	178.16	177.60	179.25	183.37	184.06	183.02	186.73	176.80
1975	181.02	180.95	183.44	184.78	186.03	189.60	188.94	192.15	197.38	196.80	198.90	205.73	190.79
1976	201.60	202.40	204.11	199.92	207.55	209.79	209.32	210.53	214.13	213.33	216.81	222.22	209.32
1977	215.05	218.65	221.90	222.96	226.24	230.52	228.17	229.31	235.65	236.29	238.10	243.72	228.90
1978	234.02	236.81	242.80	244.02	245.23	249.29	249.05	249.27	256.00	257.00	261.35	268.27	249.43
1979	260.65	262.51	266.34	254.80	265.86	269.47	268.13	268.00	274.04	274.85	277.55	285.48	269.34
1980	277.41	278.60	281.39	279.74	280.60	284.07	282.85	288.01	295.71	298.50	305.52	314.16	288.62
1981	308.43	306.13	311.62	312.84	317.59	320.39	317.59	320.40	322.32	323.95	325.54	329.97	318.00
1982	312.38	326.93	327.27	325.85	329.55	334.05	332.60	331.89	334.15	333.84	338.37	344.99	330.65

SOURCE: Michigan Employment Security Commission, special release and Bureau of Labor Statistics, Employment and Earnings (Washington, monthly), Table C-1.

TABLE XV- 7. RANKING OF MICHIGAN COUNTIES ACCORDING TO EARNINGS IN MANUFACTURING AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1981

	Percentage			Percentage	
County	1971	1981	County	1971	1981
Genesee	56.23	58.49	Eaton	30.03	28.26
Midland	66.60	55.02	St. Clair	31.27	26.89
Saginaw	52.38	50.95	Livingston	24.57	25.13
St. Joseph	52.68	50.89	Ogemaw	11.21	24.88
Macomb	55.27	49.88	Benzie	19.98	24.77
Ottawa	45.76	48.73	Gladwin	22.35	24.13
Manistee	44.90	48.69	Dickinson	17.13	23.34
Lenawee	51.53	48.07	Otsego	29.62	22.74
Muskegon	47.93	47.37	Alcona	11.90	21.64
Allegan	37.85	46.86	Clinton	20.13	20.66
Montcalm	50.39	46.82	Lapeer	23.63	20.32
Berrien	51.93	46.27	Huron	19.63	19.89
Calhoun	44.32	43.42	Schoolcraft	15.98	19.67
Wayne	41.04	43.42	Iron	5.58	19.01
Hillsdale	41.31	43.24	Tuscola	24.16	18.42
Menominee	38.89	43.17	Ontonagon	11.01	17.77
Washtenaw	43.05	42.80	Grand Traverse	15.84	17.58
Osceola	42.52	42.04	Arenac	13.99	17.17
Delta	27.82	41.39	Mecosta	16.78	16.58
Cass	40.79	41.34	Oceana	10.70	14.89
Kalamazoo	41.64	41.23	Kalkaska	18.84	14.35
Barry	44.21	40.35	Montmorency	29.98	14.16
Charlevoix	31.96	39.23	Emmet	13.18	13.82
Ionia	31.27	39.10	Clare	21.75	13.80
Alger	39.05	39.03	Gogebic	23.33	13.12
Kent	36.45	38.87	Roscommon	8.18	12.65
Mason	26.89	37.07	Oscoda	11.57	12.34
Alpena	38.16	36.53	Iosco	7.47	11.19
Bay	37.85	36.21	Missaukee	1.73	11.09
Jackson	37.91	35.89	Isabella	6.18	10.38
Ingham	37.22	34.86	Houghton	8.06	6.65
Van Buren	34.29	34.74	Chippewa	2.38	6.44
Wexford	28.96	33.60	Leelanau	6.35	5.14
Newaygo	34.72	33.42	Mackinac	3.10	4.08
Branch	33.62	32.99	Presque Isle	2.67	3.38
Antrim	39.76	31.94	Lake	11.63	3.22
Gratiot	31.06	31.82	Luce	7.65	2.94
Sanilac	36.49	31.47	Marquette	4.54	2.91
Baraga	45.41	31.20	Crawford	18.14	(D)
Shiawassee	38.62	30.62	Keweenaw	27.86	(D)
Oakland	34.51	30.16			
Cheboygan	28.22	29.56	Michigan	41.14	40.41
Monroe	39.33	28.63	United States	26.20	25.67

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D) Withheld to avoid disclosing data for individual companies.

TABLE XV- 8. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN MANUFACTURING: 1980-1981

County	Percentage change	
	1971-1981	1980-1981
Presque Isle	207	38
Iron	710	36
Clinton	174	24
Delta	283	24
Ingham	146	24
Clare	57	24
Kalkaska	465	23
Ionia	231	23
Chippewa	332	23
Hillsdale	147	23
Ogemaw	566	22
Ontonagon	207	22
Montcalm	128	21
Genesee	152	19
Bay	120	18
Otsego	187	17
Allegan	219	17
Cass	136	17
Isabella	408	17
Missaukee	1,584	17
Menominee	193	16
Van Buren	142	14
Ottawa	207	13
Saginaw	126	13
Schoolcraft	201	12
Kalamazoo	161	12
Wexford	225	11
Kent	186	10
Grand Traverse	254	10
Sanilac	75	10
Iosco	191	10
Lapeer	111	10
Jackson	113	10
Mackinac	229	9
Calhoun	113	9
Eaton	131	9
Livingston	215	8
Benzie	193	8
Newaygo	105	8
St. Clair	107	8
Oakland	155	8
Monroe	94	8
Muskegon	127	8
Branch	138	8
Berrien	77	8
Washtenaw	190	7
Mason	160	7
Alger	128	6
Osceola	148	6
Charlevoix	241	6
Gratiot	142	6
Lenawee	82	6
Arenac	217	6
Manistee	155	5
Tuscola	93	5
Alcona	327	4
St. Joseph	128	4
Gladwin	181	4
Cheboygan	161	4
Lake	-58	4
Macomb	106	3
Leelanau	70	3
Wayne	99	2
Huron	144	2
Dickinson	252	2
Midland	111	2
Roscommon	325	1
Alpena	117	1
Shiawassee	61	1
Oscoda	129	0
Marquette	78	0
Houghton	98	-3
Barry	106	-5
Baraga	39	-6
Oceana	243	-7
Emmet	153	-14
Mecosta	163	-17
Luce	-1	-17
Antrim	95	-20
Gogebic	6	-21
Montmorency	-14	-31
Crawford	(D)	(D)
Keweenaw	(D)	(D)
Michigan	125	8
United States	152	9

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D) Withheld to avoid disclosing data for individual companies.

TABLE XV-9. RANKING OF MICHIGAN COUNTIES ACCORDING TO EARNINGS IN NON-DURABLE GOODS MANUFACTURING AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1981

County	Percentage		County	Percentage	
	1971	1981		1971	1981
Midland	65.74	54.18	Barry	1.74	4.45
Alger	(D)	35.16	Oceana	4.71	4.18
Allegan	16.25	28.21	Shiawassee	8.47	4.17
Manistee	28.14	27.33	Gogebic	3.85	4.02
Newaygo	30.98	26.71	Tuscola	3.71	3.97
Osceola	20.38	25.65	Eaton	2.11	3.84
Calhoun	20.86	23.09	Washtenaw	3.66	3.66
Kalamazoo	22.76	21.00	Monroe	9.46	3.36
Delta	14.10	19.69	Gladwin	3.00	3.11
Cheboygan	16.71	19.27	Saginaw	2.95	3.06
Gratiot	13.82	19.24	Antrim	1.63	2.49
Benzie	14.67	18.33	Arenac	1.05	2.32
Schoolcraft	10.65	16.08	Oakland	2.44	2.07
Mason	8.92	15.15	Emmet	1.26	2.01
Lenawee	10.03	14.62	Ingham	2.37	1.91
Sanilac	12.85	14.47	Houghton	3.56	1.85
St. Joseph	18.74	14.34	Iron	1.16	1.83
Wexford	8.14	12.29	Missaukee	0.61	1.73
St. Clair	11.29	11.40	Roscommon	1.72	1.66
Ontonagon	(D)	10.42	Mackinac	1.68	1.40
Hillsdale	5.58	10.26	Presque Isle	0.57	1.39
Kent	9.24	10.19	Isabella	1.85	1.31
Menominee	9.77	10.10	Marquette	2.17	1.30
Lapeer	7.38	10.08	Genesee	2.02	1.22
Baraga	27.82	10.00	Chippewa	1.24	0.94
Van Buren	11.61	8.67	Clinton	0.76	0.37
Bay	6.36	7.95	Kalkaska	(D)	0.00
Montcalm	6.25	7.90	Keweenaw	(D)	0.00
Ottawa	9.42	7.88	Lake	(D)	0.00
Berrien	9.88	7.31	Alcona	(D)	(D)
Macomb	6.19	6.90	Cass	2.45	(D)
Grand Traverse	7.37	6.81	Charlevoix	2.34	(D)
Jackson	6.98	6.73	Crawford	1.08	(D)
Muskegon	6.60	6.33	Iosco	0.39	(D)
Livingston	3.74	6.29	Leelanau	3.09	(D)
Wayne	6.23	5.42	Luce	0.58	(D)
Huron	6.49	5.14	Mecosta	10.11	(D)
Dickinson	2.43	5.14	Montmorency	5.00	(D)
Branch	3.57	5.11	Oscoda	0.00	(D)
Ogemaw	(D)	4.88	Otsego	1.31	(D)
Clare	3.97	4.82			
Alpena	11.99	4.73	Michigan	6.96	6.54
Ionia	13.13	4.54	United States	10.04	9.08

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D) Withheld to avoid disclosing data for individual companies.

TABLE XV-10. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN NON-DURABLE GOODS MANUFACTURING: 1980-1981

County	Percentage change 1971-1981	Percentage change 1980-1981	County	Percentage change 1971-1981	Percentage change 1980-1981
Presque Isle	496	161	Monroe	-5	4
Bay	188	58	Berrien	47	4
Clare	200	49	Arenac	470	4
Hillsdale	334	30	Cheboygan	187	3
Delta	259	28	Kalamazoo	143	3
Ionia	-9	24	Wayne	64	3
Iron	277	23	St. Joseph	80	3
Missaukee	644	21	Houghton	25	3
Allegan	348	21	Branch	247	2
Jackson	117	20	Mackinac	108	2
Lapeer	235	19	Isabella	114	2
Schoolcraft	270	17	Midland	110	1
Eaton	347	17	Genesee	46	1
Montcalm	211	16	Gratiot	229	0
Barry	479	16	Ogemaw	(D)	0
Menominee	173	15	Grand Traverse	195	-1
Sanilac	129	15	Washtenaw	192	-1
Benzie	196	14	Ingham	111	-1
Gladwin	170	14	Antrim	271	-4
Lenawee	184	14	Chippewa	22	-5
Oakland	148	12	Marquette	66	-8
Kent	195	12	Baraga	-27	-8
Emmet	286	12	Gogebic	96	-13
Manistee	129	12	Clinton	28	-27
Ontonagon	(D)	12	Oceana	119	-27
Muskegon	121	11	Alpena	-11	-65
Shiawassee	0	11	Alcona	(D)	(D)
Newaygo	83	10	Cass	(D)	(D)
St. Clair	144	10	Charlevoix	(D)	(D)
Dickinson	448	10	Crawford	(D)	(D)
Roscommon	166	9	Iosco	(D)	(D)
Mason	220	9	Kalkaska	(D)	(D)
Calhoun	140	9	Keweenaw	(D)	(D)
Ottawa	141	9	Lake	(D)	(D)
Alger	(D)	8	Leelanau	(D)	(D)
Saginaw	141	8	Luce	(D)	(D)
Huron	90	7	Mecosta	(D)	(D)
Tuscola	171	7	Montmorency	(D)	(D)
Wexford	324	6	Oscoda	(D)	(D)
Osceola	215	5	Otsego	(D)	(D)
Livingston	418	5			
Macomb	154	5	Michigan	115	6
Van Buren	78	5	United States	133	9

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D) Withheld to avoid disclosing data for individual companies.

TABLE XV-11. RANKING OF MICHIGAN COUNTIES ACCORDING TO EARNINGS IN DURABLE GOODS MANUFACTURING AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1981

County	Percentage		County	Percentage	
	1971	1981		1971	1981
Genesee	54.21	57.27	St. Clair	19.98	15.49
Saginaw	49.43	47.89	Arenac	12.94	14.85
Macomb	49.08	42.98	Huron	13.14	14.75
Muskegon	41.33	41.04	Tuscola	20.46	14.45
Ottawa	36.35	40.85	Kalkaska	(D)	14.32
Washtenaw	39.38	39.14	Gratiot	17.24	12.58
Berrien	42.05	38.96	Emmet	11.92	11.81
Montcalm	44.15	38.92	Roscommon	6.47	10.99
Wayne	34.81	38.00	Grand Traverse	8.48	10.77
St. Joseph	33.93	36.55	Oceana	5.99	10.71
Barry	42.47	35.89	Cheboygan	11.51	10.29
Ionia	18.14	34.56	Lapeer	16.25	10.24
Lenawee	41.50	33.46	Missaukee	1.12	9.36
Menominee	29.12	33.07	Gogebic	19.48	9.10
Hillsdale	35.73	32.98	Isabella	4.33	9.07
Ingham	34.85	32.95	Clare	17.78	8.97
Alpena	26.17	31.80	Ontonagon	(D)	7.35
Antrim	38.13	29.46	Newaygo	3.74	6.71
Jackson	30.93	29.16	Benzie	5.31	6.44
Kent	27.21	28.68	Chippewa	1.14	5.49
Bay	31.49	28.25	Houghton	4.50	4.79
Oakland	32.07	28.09	Alger	(D)	3.87
Branch	30.05	27.88	Schoolcraft	5.33	3.59
Shiawassee	30.15	26.45	Lake	(D)	3.22
Van Buren	22.68	26.07	Mackinac	1.42	2.69
Monroe	29.87	25.27	Presque Isle	2.10	1.99
Eaton	27.92	24.43	Marquette	2.37	1.61
Mason	17.97	21.92	Midland	0.85	0.84
Delta	13.72	21.70	Alcona	(D)	(D)
Manistee	16.76	21.35	Cass	38.34	(D)
Wexford	20.83	21.30	Charlevoix	29.62	(D)
Baraga	17.59	21.20	Crawford	17.06	(D)
Gladwin	19.35	21.02	Iosco	7.09	(D)
Calhoun	23.45	20.33	Keweenaw	(D)	(D)
Clinton	19.37	20.30	Leelanau	3.26	(D)
Kalamazoo	18.88	20.23	Luce	7.07	(D)
Ogemaw	(D)	20.00	Mecosta	6.67	(D)
Livingston	20.83	18.83	Montmorency	24.98	(D)
Allegan	21.61	18.66	Oscoda	10.85	(D)
Dickinson	14.70	18.20	Otsego	28.31	(D)
Iron	4.43	17.17			
Sanilac	23.65	[illegible]	Michigan	34.18	33.87
Osceola	22.14	16.39	United States	16.16	16.59

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D) Withheld to avoid disclosing data for individual companies.

TABLE XV-12. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN DURABLE GOODS MANUFACTURING: 1980-1981

	Percentage change			Percentage change	
County	1971-1981	1980-1981	County	1971-1981	1980-1981
Alpena	175	40	Sanilac	46	6
Ontonagon	(D)	39	Mason	130	5
Iron	823	38	Cheboygan	123	5
Chippewa	669	30	St. Joseph	154	5
Ogemaw	(D)	29	Oceana	340	4
Clinton	180	26	Tuscola	79	4
Ingham	148	26	Lake	(D)	4
Kalkaska	(D)	23	Presque Isle	130	4
Ionia	404	23	Lenawee	57	3
Kalamazoo	182	23	Macomb	99	3
Montcalm	117	22	Gladwin	182	3
Hillsdale	118	21	Wayne	106	2
Delta	307	20	Lapeer	54	2
Isabella	533	20	Newaygo	281	1
Genesee	156	19	Huron	170	0
Grand Traverse	305	18	Roscommon	368	0
Van Buren	174	17	Shiawassee	78	0
Gratiot	72	17	Dickinson	220	-1
Menominee	200	17	Manistee	200	-1
Missaukee	2,096	16	Benzie	187	-5
Ottawa	224	14	Houghton	156	-5
Wexford	187	14	Baraga	143	-5
Mackinac	372	14	Alger	(D)	-5
Saginaw	125	14	Schoolcraft	65	-7
Clare	25	13	Barry	91	-7
Allegan	123	12	Emmet	140	-17
Midland	151	11	Antrim	88	-22
Kent	182	10	Gogebic	-12	-24
Bay	106	10	Alcona	(D)	(D)
Livingston	179	10	Cass	(D)	(D)
Calhoun	88	9	Charlevoix	(D)	(D)
Branch	125	9	Crawford	(D)	(D)
Washtenaw	190	8	Iosco	(D)	(D)
Berrien	84	8	Keweenaw	(D)	(D)
Monroe	126	8	Leelanau	(D)	(D)
Osceola	86	8	Luce	(D)	(D)
Eaton	115	8	Mecosta	(D)	(D)
Oakland	155	8	Montmorency	(D)	(D)
Jackson	112	7	Oscoda	(D)	(D)
Muskegon	128	7	Otsego	(D)	(D)
Marquette	89	7			
St. Clair	87	7	Michigan	127	8
Arenac	197	6	United States	164	9

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D) Withheld to avoid disclosing data for individual companies.

TABLE XV-13. RAW STEEL PRODUCTION IN MICHIGAN AND THE UNITED STATES, BY MONTH: 1971-1982

(1,000 tons)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1971	758	666	741	809	938	831	826	691	637	729	711	734
1972	779	734	797	792	840	705	680	799	748	828	823	854
1973	807	786	895	936	995	925	930	920	930	968	890	963
1974	935	824	916	841	871	864	919	864	837	949	824	815
1975	867	787	852	738	693	654	693	710	776	783	708	766
1976	818	823	859	821	966	927	888	896	805	833	904	849
1977	823	796	884	823	877	891	811	908	875	768	799	775
1978	772	741	912	807	902	909	978	940	950	1,035	920	926
1979	1,002	878	1,044	988	1,025	981	968	942	819	823	753	751
1980	839	810	828	803	585	365	437	452	546	737	760	706
1981	770	702	827	798	788	744	792	794	684	579	590	612
1982	500	451	544	592	617	570	597	550	478	413	360	448
						United States						
1971	11,274	10,874	12,645	12,565	12,920	11,491	9,942	5,774	7,678	8,211	8,053	8,784
1972	10,001	9,980	11,588	11,588	11,937	10,980	10,341	10,842	10,913	11,657	11,398	11,878
1973	12,372	11,626	13,088	12,789	13,174	12,488	12,290	12,181	12,229	12,876	12,587	12,722
1974	12,726	11,598	12,758	12,442	12,752	12,185	12,155	11,837	11,849	12,617	11,614	10,960
1975	11,584	10,862	11,980	10,667	9,864	8,744	8,370	8,648	9,295	9,214	8,709	8,846
1976	9,835	9,907	11,294	11,439	12,136	11,605	11,400	11,128	10,463	10,295	9,227	9,215
1977	9,089	8,859	11,049	11,167	12,201	11,384	10,319	10,392	10,050	10,442	9,748	10,031
1978	10,301	9,643	11,082	11,528	12,320	11,861	11,387	11,550	11,467	12,104	11,654	11,812
1979	11,105	10,562	12,576	12,196	12,789	12,230	11,821	11,309	10,541	10,810	9,997	9,996
1980	10,701	10,332	11,439	10,658	9,226	7,501	6,796	7,019	7,767	9,442	10,057	10,180
1981	10,590	10,028	11,744	11,243	11,374	10,451	10,160	10,120	9,618	9,003	7,962	7,671
1982	7,737	7,178	8,049	6,982	6,678	6,050	5,719	5,538	5,302	5,262	4,546	4,456

SOURCE: American Iron and Steel Institute, special release.

TABLE XV-14. PIG IRON PRODUCTION IN MICHIGAN AND THE UNITED STATES, BY MONTH, 1975-1982

(1,000 tons)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1975	638	598	660	594	573	545	576	576	592	578	518	568
1976	597	601	619	605	705	662	626	613	568	588	622	588
1977	553	529	581	570	592	622	569	628	614	494	531	534
1978	540	512	628	527	627	626	671	649	638	685	600	620
1979	612	581	691	652	680	662	633	631	591	569	497	518
1980	576	552	556	581	460	296	336	349	345	470	490	463
1981	496	457	534	496	488	474	514	532	493	448	403	421
1982	342	307	352	347	364	345	382	391	356	311	274	351
						United States						
1975	7,371	7,135	8,071	7,432	6,990	6,239	5,968	6,031	6,245	6,292	5,981	6,234
1976	6,636	6,754	7,519	7,600	8,116	7,874	7,999	7,751	6,995	6,969	6,384	6,272
1977	5,985	5,827	7,174	7,382	7,962	7,530	7,008	6,763	6,526	6,595	6,108	6,419
1978	6,390	5,971	6,894	7,189	7,936	7,754	7,636	7,515	7,391	7,809	7,533	7,668
1979	7,064	6,636	7,953	7,726	8,277	8,026	7,799	7,351	6,762	6,779	6,258	6,372
1980	6,583	6,357	7,115	6,677	5,9[illegible]	4,664	4,222	4,360	4,596	5,621	6,132	6,489
1981	6,603	6,108	7,193	6,755	6,842	6,408	6,268	6,259	5,889	5,422	4,782	4,750
1982	4,489	4,169	4,622	3,967	3,904	3,595	3,516	3,277	3,160	3,077	2,648	2,712

SOURCE: American Iron and Steel Institute, special release.

TABLE XV-15. MICHIGAN OIL REFINERIES: 1981

Company	Refinery location	Nominal capacity Bbls/day
Bay Refining, Dow Chemical Co.	Bay City	17,000
Crystal Refining Co.	Carson City	6,200
Lakeside Refining Co.	Kalamazoo	5,600
Total Petroleum, Inc.	Alma	42,500
Marathon Oil Co.	Detroit	68,500
Osceola Refining Co.	West Branch	12,500
Total capacity		152,300
Total average daily amount of crude refined		94,812
Michigan produced crude		61,743
Out-of-State produced crude		33,069

SOURCE: Michigan Department of Natural Resources, special release.

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TABLE XV-16. WINE SHIPMENTS BY WINERY, AND BEER SHIPMENTS BY BREWERY, IN MICHIGAN: 1979-1981

Producer	1979	1980	1981
Winery shipments (gallons)[a]			
Boskydel	3,139.9	3,332.1	3,714.3
Bronte	98,690.7	94,463.6	81,639.7
Chateau Grand Traverse	11,077.7	11,190.3	13,445.3
Cha	13,691.9	37,305.8	41,933.4
Fenn (Fennville)	14,119.4	16,448.0	16,913.5
Fenn (Rockford	1,588.0	1,168.7	0
Fink	608.7	898.1	751.7
Frontenac	99,706.4	79,789.0	66,378.0
Good Harbor	0	0	3,782.6
Lakeside	33,488.5	24,496.1	21,587.3
Leelanau (Omena)	13,160.2	24,633.3	18,821.1
Leelanau (T.C.)	11,221.8	12,071.3	8,418.7
Leelanau-Frank.	0	0	2,795.9
L. Mawby	298.4	362.4	527.5
Milan	127,516.7	112,145.8	75,674.1
St. Julian	161,571.8	139,074.8	170,462.7
Tabor Hill	1,475.0	n.a.	0
Vendramino	1,864.1	689.3	371.0
Warner Vineyards	300,474.5	332,644.4	252,672.2
TOTAL	893,693.7	890,712.5	779,889.1
Brewery shipments (barrels)[a]			
Carling			
Sold in Michigan	443,501	599,492	639,646
Shipped out	255,432	245,286	208,458
Bottled and barreled	698,933	844,778	848,104
Geyer			
Sold in Michigan	3,222	3,180	3,240
Shipped out	24	61	158
Bottled and barreled	3,246	3,241	3,398
Stroh			
Sold in Michigan	640,454	632,796	622,852
Shipped out	5,131,490	5,239,536	5,163,700
Bottled and barreled	5,771,944	5,872,332	5,786,552
Stroh-Goebel			
Sold in Michigan	101,191	105,888	134,738
Shipped out	142,115	176,939	245,390
Bottled and barreled	243,306	282,827	380,128
TOTAL			
Sold in Michigan	1,188,368	1,341,356	1,400,476
Shipped out	5,529,061	5,661,822	5,617,706
Bottled and barreled	6,717,429	7,003,178	7,018,182

SOURCE: Michigan Liquor Control Commission, special release.

a. Withdrawals from bond.

n.a.: Not available.

TABLE XV-17. PRODUCTION OF INORGANIC CHEMICALS IN MICHIGAN AND THE UNITED STATES: 1967-1981

(In thousands of short tons)

Year	Chlorine gas		Sodium hydroxide		Hydrochloric acid	
	Michigan	United States	Michigan	United States	Michigan	United States
1967	589	7,680	687	8,398	126	1,630
1968	601	8,444	672	8,868	119	1,748
1969	627	9,376	672	9,917	139	1,911
1970	583	9,764	611	10,141	131	2,014
1971	502	9,352	522	9,667	140	2,099
1972	510	9,873	528	10,217	138	2,302
1973	533	10,402	584	10,734	130	2,516
1974	563	10,753	613	11,189	139	2,451
1975	445	9,167	484	9,635	101	2,009
1976	432	10,378	472	10,516	102	2,542
1977	367	10,573	408	11,000	71	2,668
1978	380	11,052	421	11,326	108	2,791
1979	466	12,291	513	12,759	181	3,090
1980	383	11,421	420	11,625	169	2,895
1981	438	10,545	370	10,633	107	2,443

SOURCE: U. S. Department of Commerce, Bureau of the Census, *Current Industrial Reports*, Series 1928A, *Annual Summaries* for 1967 to 1980, tables 3 and 6. Monthly series for 1981, table 3 (Washington, D.C.: monthly).

TABLE XV-18. MANUFACTURING CAPACITY UTILIZATION RATES FOR SELECTED SMSA, MICHIGAN AND UNITED STATES: 1975-1981

SMSA	1975	1976	1977	1978	1979	1980	1981
Detroit							
Preferred rate[a]	81	94	93	90	72	60	48
Practical rate[b]	77	80	80	81	68	56	46
Grand Rapids							
Preferred rate	78	93	91	83	83	73	72
Practical rate	80	73	75	76	76	66	63
Lansing-East Lansing							
Preferred rate	94	95	97	100	96	54	c
Practical rate	89	92	108	100	95	50	c
Michigan							
Preferred rate	83	94	94	76	75	62	60
Practical rate	78	81	83	88	70	58	57
United States							
Preferred rate	80	93	93	81	79	75	72
Practical rate	74	74	76	74	74	69	66

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Industrial Reports: Survey of Plant Capacity, MQ-C1(80)-1, and MQ-C1(81)-1, Tables 3 and 4, (Washington, D.C.: annually).

a. Ratio of actual operations to preferred level of operations.

b. Ratio of actual operations to practical capacity.

c. Withheld because the estimate did not meet publication standards due to the limited statistical reliability of the data.

TABLE XV-19. COMMERCIAL WHEAT MILLING PRODUCTION IN MICHIGAN AND THE UNITED STATES: 1967-1981

Year	Wheat grd. for flour (1,000 bushels)		Wheat flour production: Total (1,000 cwt. sacks)		Wheat flour production: Daily (24 hour capacity cwt. sacks)		Average lbs. per cwt. sacks of flour
	Michigan	United States	Michigan	United States	Michigan	United States	
1967	16,966	549,801	7,453	245,240	33,870	1,132,923	
1968	17,483	569,649	7,561	254,185	31,429	1,001,526	n.a.
1969	17,861	567,956	7,740	254,094	32,129	1,013,322	n.a.
1970	16,506	563,714	7,275	253,094	34,656	987,962	n.a.
1971	16,003	555,092	7,120	249,810	34,029	972,736	n.a.
							133.3
1972	14,199	557,801	6,236	250,441	19,576	985,460	133.6
1973	9,351	567,287	4,117	254,661	18,486	979,794	133.7
1974	9,557	562,962	3,9[illegible]2	251,097	17,724	978,[illegible]76	134.5
1975	8,397	582,675	3,739	258,985	19,485	991,008	134.9
1976	9,374	618,284	4,053	275,077	19,511	1,040,628	135.0
1977	9,147	618,125	4,153	275,784	20,049	1,072,143	134.5
1978	10,416	621,321	4,446	277,950	20,220	1,058,873	134.1
1979	10,196	636,375	4,429	284,051	20,449	1,054,589	134.4
1980	9,894	628,599	4,285	282,655	22,249	1,059,643	133.4
1981	10,834	634,381	4,741	283,966	23,109	1,062,950	134.0

Source: U.S. Department of Commerce, Bureau of the Census, Current Industrial Reports, Series M20 A-13, Annual Summaries, table 4 (Washington, D.C.: Annually).

n.a.: not available.

XVI. THE AUTOMOTIVE ECONOMY

In January of this year Buick Motor Division of the General Motors Corporation announced "Buick City," a renovation that will replace one Fisher Body plant and two Buick assembly lines, together capable of producing one hundred vehicles per hour, with one rated at seventy-five per hour. Buick will emphasize to suppliers who are not already there the importance of having nearby plants to take advantage of "just-in-time" production of passenger cars.

Just-in-time, or kanban, the Japanese term for the same phenomenon, is a system of careful coordination and close monitoring so as to minimize the accumulation of materials and components between machines, stations, or factories in the production process. A leaner work-in-process inventory reduces the amount of a loan required to finance it. Such loans, a part of so-called working capital, have become major costs in these days of high interest rates. This is especially true in the automotive industry where manufacturers are accustomed to hedging against supply disruptions by stockpiling several days' or even weeks' parts inventory. These large "floats" reflect a make-do mentality rather than "let's get it right," an attitude that evolved out of the need to meet ever expanding demand in the face of slowly rising capacity during the 1960s and early 1970s. In this helter-skelter of matching demand with supply , producers also relaxed their quality control on suppliers. Besides reducing carrying costs, the switch from "just-in-case" to "just-in-time" will give rise to earlier detection of flaws and better quality control inasmuch as defective parts will not accumulate.

The Flint, Michigan, plant, which now makes rear-drive Buicks in the traditional body-chassis configuration, will make front-drive, unitized-body Buicks, Pontiacs, and and Chevrolets beginning fall 1984 (1985 model year). In Lansing, Michigan, Oldsmobile will convert its two assembly lines to the production of front-drive "N cars" for the 1985 model year. The two lines, each rated at fifty cars per hour, will make Oldsmobiles, Buicks, and Chevrolets. N cars will be sourced exclusively from Lansing. At Lake Orion the larger, front-drive Cadillacs and the Oldsmobile 98 will roll out of a new factory at a rate of seventy per hour. A now idle assembly line in Pontiac will produce the new Pontiac Fiero. By fall 1985 GM's new Detroit-Hamtramck factory will be making downsized Cadillac Eldorados and Sevilles, Oldsmobile Toronados, and Buick Rivieras, now sourced at Linden, New Jersey. Meanwhile, the Clark Avenue (Detroit) Cadillac plant will continue to produce rear-drive Cadillacs and will start to make rear-drive Oldsmobile 88s as well. The only GM car assembly plant in Michigan not scheduled for major change at this time is the one at Willow Run, near Ypsilanti, where the GM Assembly Division makes Buick Skylarks and Olds Omegas.

Under current planning, during the 1986 model year 34 percent of GM's rated U.S. capacity to produce passenger cars will be located in Michigan. Whether Michigan plants actually produce 34 percent of GM cars will depend on market conditions for the various makes and models produced here and elsewhere.

Ford has announced no recent change in its automobile production capacity, other than the closure of its plant in San Jose, California. Michigan with car assembly plants in Dearborn, Wayne, and Wixom will have 33 percent of Ford's production capacity during the 1986 model year.

Chrysler Corporation, with assembly plants in Detroit; Newark, Delaware; Belvidere, Illinois; and Fenton, Missouri, has a capacity shortage. Its immediate plans include purchase of an idle plant in Sterling Heights, Michigan, where it will produce the new H car. For the 1986 model year Michigan will contain 36 percent of the U.S. passenger car production capacity of the Chrysler Corporation.

As matters now stand, 32 percent of this nation's car assembly capacity will be located in Michigan by fall 1985. Details of Chrysler, Ford, and GM capacity, along with the AMC, VW, and Honda figures, are shown in Table XVI-4. Excluded are tiny producers such as Avanti (South Bend) and Excalibur (Milwaukee). The table does list Canadian assembly plants for the major passenger car producers, however, because they are integral plats of their North American operations. The Canadian-U.S. industry has rationalized since 1965 as a result of the Automotive Products Trade Agreement. In return for promises of substantial production increases, automobile makers in Canada (essentially the subsidiaries of the major U.S. companies) were allowed to import duty-free, motor vehicles and parts from the United States. The elimination of U.S. tariffs with respect to motor vehicles and parts made in Canada gave Canadian plants free access to the American market. As a consequence of the elimination of trade barriers, traffic in these products between our two countries rose from a level of less than $750 million in 1964 to $24.3 billion in 1982. From an also-ran position, Michigan has become a top exporter of manufactured products as a consequence of our access to the Canadian market for assembled vehicles as well as intermediate components.

MICHIGAN'S PRODUCTION PROGNOSIS

At best, the U.S. auto industry will be capable of comfortably producing about 11.5 million 1986 model automobiles, given the capacity that will be available under the assumptions in Table XVI-4. Michigan could assembly about 3.7 million, or 32 percent of that total. Since in the best previous year (1973) the United States produced 9.7 million cars and Michigan produced 3.3 million, and given the condition of demand for North American vehicles in the foreseeable future, it seems unlikely that either the United States or Michigan 1986 potential will be realized. The year 1986, it is assumed here, is the next peak production year for the North American automobile industry.

The Bureau of Industrial Economics of the U.S. Department of Commerce, looking ahead in its 1983 U.S. Industrial Outlook, envisages retail sales of domestic new cars of 7.9 million during 1987, an increase of less than 40 percent over the 5.7 million for 1982. The 1982 figures reflect net imports of about 600,000 units from Canadian plants of Canadian-U.S. companies. The Commerce forecast is consistent with U.S. production of about 7 million automobiles during 1986 and with overseas import sales of about 30 percent of the U.S. market.

If the Commerce prognosis is borne out, if U.S. carmakers can find markets for only two-thirds of their capacity, they are unlikely to maintain that productive ability. Capacity would be cut to, say, 9 million annual production in this country. Michigan would produce about 2.45 million automobiles or 35 percent of the 7 million U.S. total. Michigan's share would increase with capacity reduction because most of the cuts would occur in the more distant plants from the industrial heartland. As a matter of fact, except for Chrysler Corporation which had allowed its Hamtramck and Lynch Road (Detroit) plants to become decrepit, closures have taken place at the perifery in California and New Jersey. Plants not permanently closed but not currently in operation are located in Georgia and California. Plants that would seem to be logical candidates for closure in a permanent shrinkage are located in California, New Jersey, Delaware, Texas, New York, Kansas, Illinois, and Michigan. In short, in a worst-case scenario Michigan stands to gain an increasing share of a diminished industry. To economize, companies would tend to close their plants most distant from suppliers concentrated in the industrial heartland around the Great Lakes. Another reason is that the imports are most popular in the more distant markets. Assembly plants in California, for example, have had to search for ever more distant inland markets as the import share has increased. It is more economical to assemble cars in Michigan than to send components from the midwest to California for assembly into cars destined for markets in Colorado, for example.

In assessing Michigan's automotive future, it seems important to focus on the kinds of vehicles that will be produced here. In Detroit, Wixom, Sterling Heights, and Lake Orion Township we will have about two-thirds of the U.S. capacity to make luxury vehicles. After a decade of obsession with downsizing and meeting various government constraints, Detroit again is abuzz with styling, performance, and engineering, particularly in the upper echilons of the market. This segment promises to be the fastest growing within the domestic product line-up since, by 1986, one in seven U.S. households will have annual incomes of $50,000 or more. That compares with one in fourteen in 1981, and one in sixty in 1976.

TRUCKS

Chrysler makes small trucks (Rampage and Scamp) in Belvidere, Illinois. Pick-ups, vans, and its sport-utility Ramcharger are made in Warren, Michigan, locale of about 80 percent of its U.S. truck-making capacity. Ford makes its larger Bronco as well as light duty trucks in Wayne, Michigan; about 14 percent of Ford truck capacity is located here. GM has about 46 percent of its truck capacity-- ranging from its new small S truck to heavy duty semi-tractors--in its Detroit, Flint, and Pontiac plants. International Harvester, Mack, and other producers have no Michigan plants. All told, in 1986 Michigan will have about a third of the U.S. capacity to produce trucks.

Assuming the worst, that in 1986 the U.S. industry will be producing trucks at the same level as it did in 1976, and assuming that only 30 percent of those vehicles are Michigan made, this state will produce about 900,000 units, 56 percent above the 1982 rate and well below the 1973 and 1978 levels.

All GM buses are produced in Pontiac. This [illegible] no other bus plants. Because of the growth in number of producers in th[illegible] is difficult to calculate Michigan's future share [illegible] any [illegible] the very real possibility that GM bus productio[illegible] [illegible]fitable truck production by the end of this de[illegible]

In summary, Michigan's share [illegible] ctio[illegible] very likely continue to exceed 30 percent. [illegible] s, trucks, and buses in this state at the next peak [illegible] production of 4 million vehicles (the1978 figure) [illegible] imaginatio[illegible]. As a practical matter, this state's capacity [illegible] to be 5 million units annually.

By way of historical precedent, it is instructive to compare 1982-86 with two similar periods. In 1931, Michigan factories produced 715,000 vehicles, a third of the U.S. total of 2,167,000 for that year and less than half the 1929 figure for this state. The 1929 national figure was 4,780,000. In 1935, about 1,735,000 vehicles were assembled here out of a U.S. total of 3,718,000. During the Great Depression, capacity had been trimmed outside of the industrial heartland.

In 1961, fewer than 2 million cars, trucks, and buses rolled from Michigan assembly lines, about two-thirds the figure of the previous peak (1955) and 29 percent of the U.S. total. In 1965, 3,750,000 vehicles were Michigan made, 34 percent of the U.S. figure for that year and nearly double this state's 1961 level of production. The story of this state's long domination of the U.S. vehicle industry and of its ups and downs is encapsulated in the numbers in Table XVI-2.

THE 1978-82 DEBACLE

Anyone who has not worked with industry statistics published by the federal government and other organizations is probably a stranger to the Standard Industrial Classification (SIC) employed for classifying business establishments according to their major activity and product. A Census of Manufacturers pertains only to establishments whose major activity is manufacturing; although some establishments may engage in minor activities such has wholesaling, they are classified as manufacturers as long as manufacturing is their major activity. Within this sector, establishments are further categorized into particular industries on the basis of their major product. Each establishment falls into one and only one industry even though it may manufacture several products. Every industry is assigned a four-digit code number. When data are collected from manufacturing establishments, they are grouped for publication according to these SIC code numbers.

The next level of aggregation is the three-digit SIC, formed by combining related four-digit industries. SIC 371, for example, known as Motor Vehicles and Motor Vehicle Equipment, is comprised of SIC 3711 (Motor Vehicles and Passenger Car Bodies), SIC 3713 (Truck and Bus Bodies), SIC 3714 (Motor Vehicle Parts and Accessories), and SIC 3715 (Truck Trailers). At the last employment peak for Michigah, there were about 400,000 white- and blue-collar workers (wage and salary employed) in SIC 371, or 40 percent of the 1,000,000 U.S. workers so employed.

In 1981, Michigan State University's now defunct Bureau of Business and Economic Research surveyed supplier firms in an eight-county Southeast Michigan region (Lapeer, Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne counties). Except for GM, Ford, and Chrysler, all establishments with one hundred or more employees and one-in-ten of those with fewer employees were queried regarding their automobile activity. Of 1,800 establishments for which useable responses were received, 1,474 were directly linked to the automotive industry as suppliers.

The extent of Michigan's vast automotive infrastructure also was demonstrated in a 1981 survey by the Michigan Employment Security Commission (MESC). The MESC queried manufacturing establishments with one hundred or more employees regarding their automotive supplier activity.

On the basis of the MSU and MESC studies it is estimated that there were 750,000 automotive-related manufacturing jobs in Michigan during the last quarter of 1978. This represented 19 percent of the state's total employment and did not include advertising, banking, insurance, trucking, railroads, and other nonmanufacturing jobs entailed in the provision of services to the auto industry.

By the last quarter of 1982, the number of automotive-related manufacturing jobs in Michigan stood at about 525,000, a decline of 30 percent from the 1978 peak.

EMPLOYMENT PROSPECTS

Whereas 10 years ago it meant better lighting at work stations and new paint on factory walls, these days quality of work life (QWL) is meaningful employee participation and involvement in decisions affecting their jobs.

Management listens to and acts on the advice of its work force, who are intimately acquainted with the work flow. There is less emphasis on the urgency of keeping the production line going at all costs and more focus on the process itself and on human dignity. At upper echilons, management and labor have expressed their determination to build relationships based on trust, confidence, honesty, and openness. Reduced stress in the workplace is one outcome; high level, high quality production is another.

Participatory management starts with the blurring of class distinctions. There is one parking lot and one cafeteria to serve both hourly and salaried workers. Few salaried workers wear suits and neckties in today's QWL factory. In plants where it has been introduced, participatory management entail sharing of cost data and various other information once kept secret. Teamwork replaces lines of authority. Insofar as possible, the men and women at the machines decide who will do what. Foremen become coordinators and facilitators. Workers decide when the production process should be interrupted to make corrections; they are encouraged to consult directly with maintenance people, each other, or management to remedy defects before they become serious, as well as to improve products and processes. Job definitions are imprecise. Workers receive increased pay, albeit within relatively narrow limits, for improving and diversifying their skills.

Increasingly, robots are replacing human beings to do repetitive, dangerous, and undesirable jobs. According to a recent study by the W. E. Upjohn Institute for Employment Research, robotics will displace 30 to 40 percent of Michigan's production painter jobs in the automotive industry.[1] Among welders here, the job loss would lie in the 15-20 percent range. Total displacement from the blue-collar work force due to robotics would range between 5.1 percent and 8.6 percent, or between 10,000 and 18,000 of the 207,000 blue-collar workers employed in Michigan by GM, Ford, and Chrysler in 1978.

Labor projections also are affected by vehicle downsizing. In 1981, The University of Michigan, the Michigan Manufacturers Association, and Arthur Andersen and Co., with the participation of the Transportation Systems Center of the U.S. Department of Transportation, surveyed industry experts on the projected use of materials, with the following results:

Michigan's foundry, steel, forgings, and stamping industries already have been heavily affected by the sharp decline in automotive production and by downsizing. There is no likelihood of their returning to 1978 volumes of production even if unit production of vehicles returns to that level. Smaller engines are shrinking the market for piston rings, bearings, and other machine

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[1] H. Allan Hunt and Timothy L. Hunt, Robotics, Human Resource Implications for Michigan, A Summary (Kalamazoo: The W. E. Upjohn Institute for Employment Research, 1982), p. 6.

Material (pounds per U.S. produced passenger car)	Actual 1980	Projected 1985	Projected 1990
Steel (low-carbon and HSLA)	1,900	1,600	1,300
Iron	500	300	250
Plastics (nonreinforced, fiber-reinforced and metal laminate)	200	240	300
Aluminum (cast and wrought)	120	150	200
Glass	90	70	50
Other	490	340	150
Total	3,300	2,700	2,250

SOURCE: The University of Michigan and Arthur Andersen and Company., _U.S. Automotive Industry in the 1980s: A Domestic and Worldwide Perspective_ (Detroit: 1981), p. 17.

parts, made in Michigan as well as other places. Front-wheel drive decimates the market for rear axles, drive shafts, and differentials.

Robotics, participatory management, and process designs are revolutionizing the production process. Buick City, for example, will operate with nearly five-thousand wage and salaried people as compared with about seven-thousand now in the Buick and Fisher Body plants. In short, to survive as the automotive capital, Detroit must be far less extravagant with labor, materials, and working capital than it was in 1978. Fewer blue-collar jobs require fewer white-collar supporting jobs. Participatory management reduces the salaried-to-hourly worker ratio in the plants. The new management ethic of facile communications between top echelons and the plant floor requires fewer layers or levels of management. Finally, a subject not touched on so far, office automation is expected to thin the white-collar ranks.

Just-in-time production is expected to create new jobs. Recently the City of Detroit acquired idled, antiquated Chrysler facilities on its east side. The site will be prepared for an industrial park designed to attract suppliers not just to GM but to nearby Chrysler and Ford plants. Suppliers also are expected to locate in a new industrial park in Hamtramck and in similar parks and vacant factories throughout southern Michigan.

The automotive Big Three employed 500,000 people in this state in late 1978 and early 1979. As a result of downsizing products and streamlining operations, they are expected to employ 350,000 at the next peak (fall 1985) and to achieve unit production at the ten million unit level. These figures represent total employment, including nonmanufacturing and nonautomotive operations such as Ford's farm tractor plant in Romeo. Automotive manufacturing employment will decline from about 425,000 to 300,000. Suppliers employed around 325,000 in 1978. The streamlined supplier industry, including new facilities to meet the just-in-time regimen, is expected to employ 300,000.

Given the U.S. Department of Commerce vehicle market analysis, there will be no more than 600,000 Michigan jobs entailed in the manufacture of vehicles and components in fall 1985. That figure represents a permanent loss of 150,000 such jobs from the 1978 peak.

It is instructive to review the 1961-65 experience from a productivity perspective. In 1961 the industry produced 10.5 vehicles per worker, not allowing for supplier industries to SIC 371. By 1965, the industry was making 13.2 vehicles per worker. In 1978, unit output per worker was actually marginally below the 1965 figure, and in 1982 it was below the 1961 figure. True, the 1961 vehicle was much less sophisticated than its 1981 counterpart, but it also was considerably more affordable by the typical U.S. household.

To find markets for ten million cars, trucks, and buses made in the United States, the industry very likely will have to exceed the 1978 level of unit output per worker. It is my guess that workers in SIC 371 will have to produce 15 units each on the average and of a higher quality than the 1978 or 1982 products. That implies 667,000 blue- and white-collar workers in SIC 371, of which about 45 percent or 300,000 would be in Michigan factories, offices, and so forth. If the industry can substantially improve its productivity to 17 units per worker, then the 1978 level of production seems attainable, implying about 750,000 jobs nationwide in SIC 371, of which 325,000 or 43 percent would be in Michigan factories. Total manufacturing employment entailed in vehicle production would approximate 650,000, still 100,000 or 13 percent short of the 1978 level.

A dramatic turnaround in industry productivity also would justify the relatively high level of wages in the industry. For 1982, average hourly earnings for blue-collar workers in SIC 371 amounted to $11.12. This was 45 percent above average hourly earnings for production or nonsupervisory workers in all private industry in this country.

THE SHAPE OF 1986

At the low-wage, low-skill level, many Michigan jobs already have disappeared. They were lost with the closure of wiring harness plants in Atlanta, Standish, Sault Ste. Marie, Morley, and Clare. Those plants primarily employed women who were paid wages somewhat above the minimum to assemble electric wiring systems for motor vehicles. Closings also include muffler factories, small foundries and stamping plants, plastic extrusion plants, and various other components factories. These terminations resulted from the depressed market as well as the lure of Mexican labor at 85 cents per hour.

By the mid-1980s automotive electronics will be more popular. In luxury cars on-board computers will adjust seats and mirrors to suit the driver, issue warnings to intoxicated or drowsy drivers, and monitor trips in addition to controlling engine speed, warning of malfunction, and so forth. With a high proportion of luxury car production located here, Michigan can expect to attract foreign companies interested in increasing their shares of the Canadian and U.S. markets for automotive electronics. The industrial parks in southeast Michigan may also host plants that produce high value-added components for those luxury cars, styled and engineered to European standards. Turbo chargers, for example, will be required on engines made in Lansing, Flint, Pontiac, Livonia, Dearborn, and Detroit.

Detroit's suppliers will seek diversity in their markets. A link-up of office and automotive electronics is one logical outcome. Grand Rapids, after all, is the office furniture capital of the world.

Engines from Japan find their way into cars assembled in this country. Connecting rods from a factory in Dearborn are sent to an engine factory in Wales. The trend to global sourcing of components can be expected to continue, even though it contradicts the principle of just-in-time. What economists call economies of scale are partly responsible for this phenomenon. Today's engine factories, for example, are designed for optimum production of 500,000 or more automotive power plants annually. Rarely does a single vehicle assembly plant operate at that scale. Cost and risk-sharing are other reasons for global sourcing. Chrysler corporation installs gasoline engines from its partner Mitsubishi because it cannot afford to build a separate plant. Ford will import diesel engines for its new Tempo and Topaz cars from its partner Toyo Kogyo for the same reason. In short, the Michigan product of 1986 will incorporate a higher proportion of components made in Canada, Japan, Spain, Mexico, Germany, and other countries. In turn, factories here will export hydramatic transmissions, steering gear, engines, and other components in greater dollar volume than now.

Traditionally, virtually all of Ford's automotive research and development activity has taken place in Michigan. Ford's R & D efforts were augmented last year with the new Paint Research Center in Mount Clemens and the new Robotics and Automation Applications Consulting Center in Dearborn. Chrysler is consolidating its Introl Division (instruments and electronics) in Huntsville, Alabama. Its major R & D activity is near headquarters in Highland Park, Michigan. Recently Chrysler converted its Eight Mile (Detroit) Stamping Plant to a manufacturing technology center. Warren, Michigan, is home of the GM Technology Center. GM also maintains considerable R & D activity at its divisional headquarters in Lansing (Oldsmobile), Flint (Buick, AC Spark Plug), Pontiac (Pontiac Motor, GM Truck and Bus Group), Detroit

(Cadillac, Detroit Diesel Allison), Ypsilanti (Hydramatic), and Saginaw (Saginaw Steering Gear, Central foundry). Suppliers such as Bendix, Budd, Eaton, and Sealed Power also conduct automotive R & D in the Wolverine State.

These activities are reflected in patent statistics. Of the ten companies which were granted twenty or more patents with a Michigan origin in 1980, five were in the automotive business.

Company	Number of patents	
	Michigan	United States
General Motors	188	326
Upjohn	148	170
Dow	144	259
Ford Motor	133	145
BASF	47	56
Bendix	43	131
Eaton	42	104
Dow Corning	26	31
Chrysler	23	25
Ethyl	23	50

These companies accounted for 429 or 20 percent of the 2,167 patents granted in Michigan that year; they accounted for 59 percent of the patents granted to the companies. The underlying patent data show that 25-30 percent of the patents granted in Michigan are related to motor vehicles, 20-25 percent to pharmaceuticals and other chemicals, and 15-20 percent to machinery, including materials handling equipment. Historically, 13-14 percent of all privately funded R & D spending in the nation has taken place in Michigan. With the need to keep abreast of new automotive and production technology, that share will increase by middecade. However, because of the rapid productivity gains made possible by computers, the ranks of engineers and scientists will thin in companies already here, providing a source of skilled labor for newcomers.

In summary, Michigan's automotive industry will be more fully integrated into the global automotive industry, more technology oriented, and less labor intensive at all skill levels than it was in 1978. Displace skilled white- and blue-collar workers will find employment with companies that expand or relocate here, or they will leave for jobs in other states. Displaced unskilled workers will find the transition more difficult, especially those that are over 50, male, and black.

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TABLE XVI-1. WORLD PRODUCTION OF MOTOR VEHICLES, BY COUNTRY: 1957-1981

Year	United States	Canada	Japan	France	West Germany	Italy	United Kingdom	Russia	Spain
1957	7,220,431	413,577	181,977	927,956	1,212,206	351,815	1,149,095	495,408	30,436
1958	5,121,269	356,418	188,303	1,127,549	1,495,221	403,560	1,364,407	511,074	31,050
1959	6,723,588	367,939	262,814	1,283,159	1,718,544	500,784	1,560,427	494,994	56,800
1960	7,905,117	397,739	481,551	1,369,210	2,055,127	644,633	1,810,700	523,591	58,209
1961	6,652,938	386,923	813,879	1,244,223	2,147,825	759,140	1,464,134	555,330	75,000
1962	8,197,311	505,187	990,706	1,536,133	2,356,594	946,793	1,674,530	577,500	100,163
1963	9,108,776	631,356	1,283,531	1,736,977	2,667,896	1,180,536	2,011,720	587,012	131,988
1964	9,307,860	670,990	1,702,475	1,615,896	2,909,657	1,090,078	2,332,376	603,100	178,128
1965	11,137,830	846,609	1,875,614	1,641,696	2,976,477	1,175,548	2,177,261	634,312	228,935
1966	10,396,299	872,214	2,286,399	2,024,552	3,050,708	1,365,898	2,042,354	675,300	340,418
1967	9,023,736	919,508	3,146,486	2,009,672	2,482,319	1,542,669	1,937,119	728,800	361,637
1968	10,820,410	1,150,218	4,085,826	2,075,617	3,106,958	1,660,370	2,225,122	800,700	393,433
1969	10,205,911	1,326,478	4,674,923	2,459,072	3,604,567	1,595,951	2,182,793	844,300	454,571
1970	8,283,949	1,159,504	5,289,147	2,750,086	3,842,247	1,854,252	2,098,498	916,118	536,026
1971	10,671,654	1,346,765	5,810,774	3,010,294	3,982,722	1,817,019	2,198,146	1,142,700	532,358
1972	11,310,708	1,430,084	6,294,438	3,328,320	3,815,982	1,839,793	2,329,430	1,379,000	695,217
1973	12,681,513	1,574,820	7,082,757	3,596,179	3,949,065	1,957,994	2,163,941	1,602,000	822,020
1974	10,072,662	1,524,874	6,551,840	3,462,847	3,099,777	1,772,515	1,936,685	1,846,000	837,414
1975	8,986,605	1,424,006	6,941,591	2,861,305	3,186,208	1,458,629	1,648,399	1,964,056	814,164
1976	11,497,391	1,640,112	7,841,447	3,402,715	3,868,089	1,590,677	1,705,506	2,024,660	866,240
1977	12,702,782	1,775,445	8,514,522	3,507,881	4,104,216	1,583,917	1,714,240	2,088,369	1,129,700
1978	12,899,202	1,817,457	9,269,153	3,507,930	4,186,364	1,656,115	1,607,467	2,150,984	1,143,831
1979	11,479,993	1,631,661	9,635,546	3,613,458	4,249,743	1,632,289	1,478,512	2,173,200	1,122,918
1980	8,00[illegible],841	1,374,359	11,042,884	3,378,433	3,878,553	1,610,287	1,312,914	2,199,200	1,181,659
1981	7,942,916	1,322,780	11,179,962	3,019,370	3,897,007	1,433,743	1,184,205	2,197,000	987,474

TABLE XVI-1. WORLD PRODUCTION OF MOTOR VEHICLES, BY COUNTRY: 1957-1981 (cont.)

Year	Poland	Belgium	Sweden	Yugo-slavia	East Germany	Czecho-slovakia	Nether-lands	Hungary	Austria
1957	21,000	320	71,654	7,200	51,078	48,359	--	4,000	13,910
1958	27,000	382	91,179	7,696	54,163	58,556	1,586	5,200	19,166
1959	34,500	343	112,394	8,658	67,341	66,662	6,812	4,900	20,187
1960	36,400	256	128,527	15,921	76,000	73,684	19,339	5,600	12,568
1961	35,990	800	131,755	21,254	84,200	77,053	18,592	6,400	13,484
1962	41,129	1,043	151,568	21,197	88,000	81,224	28,577	7,700	12,395
1963	48,388	1,200	167,850	28,898	94,000	70,781	22,362	6,000	10,078
1964	54,853	2,070	184,018	38,692	102,000	55,468	36,182	8,000	7,660
1965	59,800	166,594	205,717	45,452	118,056	90,713	36,047	7,131	5,044
1966	66,975	195,219	199,910	48,834	126,626	113,421	39,993	7,990	4,210
1967	68,359	183,087	214,560	55,641	134,101	133,174	56,749	8,250	3,729
1968	84,921	172,906	244,786	74,106	139,116	150,299	66,523	8,500	4,088
1969	101,800	302,549	271,440	94,983	147,680	158,582	71,659	9,000	5,417
1970	118,100	272,433	310,887	130,563	153,378	169,920	79,219	9,200	3,937
1971	145,700	295,764	317,295	132,368	60,762	176,862	91,312	9,500	6,878
1972	156,100	271,453	305,989	126,412	69,616	182,937	99,666	10,000	6,255
1973	190,400	298,957	378,042	143,826	80,203	197,802	107,452	10,500	6,278
1974	200,878	183,128	368,359	189,728	88,930	200,877	82,081	12,075	4,642
1975	258,300	222,176	366,753	205,567	197,457	211,073	72,098	12,100	7,699
1976	312,100	326,978	367,780	216,071	202,371	215,836	86,561	12,900	8,739
1977	374,400	336,382	286,901	257,762	204,394	197,585	87,853	13,313	8,177
1978	404,261	303,260	305,534	279,759	210,486	218,463	76,197	15,973	5,486
1979	422,134	314,997	354,820	315,110	220,000	228,738	106,335	13,814	9,376
1980	432,100	259,966	298,400	283,744	216,585	233,812	96,435	16,315	16,061
1981	306,700	257,456	313,755	266,423	219,400	229,513	88,003	13,788	14,920

TABLE XVI-1. WORLD PRODUCTION OF MOTOR VEHICLES, BY COUNTRY: 1957-1981 (cont.)

Year	Argentina	Australia	Brazil	India	Korea	Mexico	South Africa	World
1957	10,600	213,620	30,700	31,932	--	41,106	--	12,528,380
1958	26,100	241,324	61,129	26,796	--	38,955	96,254	11,354,337
1959	32,952	263,592	96,243	36,997	--	51,118	98,738	13,870,486
1960	89,338	326,250	133,078	51,126	--	49,807	113,097	16,376,878
1961	136,188	231,651	145,674	53,865	--	62,563	90,660	15,209,521
1962	129,880	329,829	191,057	56,967	--	66,637	106,145	18,198,265
1963	104,899	374,058	174,221	51,416	--	69,135	147,945	20,711,023
1964	166,483	411,750	183,045	67,135	--	90,752	195,756	22,014,424
1965	194,536	407,596	185,155	72,577	--	96,654	174,991	24,560,345
1966	179,453	343,929	224,574	72,530	--	113,807	183,700	24,975,313
1967	175,318	366,547	225,418	70,359	--	126,365	193,600	24,167,203
1968	180,976	418,307	278,473	79,541	--	143,478	211,791	28,576,465
1969	218,590	451,917	349,519	76,215	--	165,164	256,296	30,029,277
1970	219,599	473,790	416,047	82,766	28,819	192,841	297,573	29,688,899
1971	253,640	470,122	516,038	89,110	23,002	210,840	295,682	33,707,307
1972	278,222	466,917	608,985	90,048	18,648	229,766	292,277	35,736,263
1973	311,614	454,190	729,135	97,917	26,314	285,513	342,383	39,190,815
1974	286,312	489,339	858,470	87,889	30,290	350,755	341,927	34,980,303
1975	240,036	456,167	929,805	74,276	36,264	360,678	363,605	33,299,017
1976	193,517	456,216	985,469	85,058	48,292	324,979	300,248	38,579,952
1977	235,356	452,592	919,242	89,145	83,000	280,813	256,801	41,204,788
1978	179,875	384,966	1,062,197	98,846	156,418	384,128	303,723	42,628,080
1979	253,217	461,468	1,127,966	101,273	204,447	444,426	314,067	41,909,508
1980	281,669	364,109	1,165,207	113,326	123,135	490,006	404,756	38,783,756
1981	172,350	391,614	779,836	148,887	133,084	597,118	453,541	37,550,845

SOURCE: Motor Vehicle Manufacturers Association of the United States, World Motor Vehicle Data (Detroit: 1982).

TABLE XVI-2. PRODUCTION OF MOTOR VEHICLES IN MICHIGAN AND THE UNITED STATES, SELECTED YEARS: 1904-1982

	Cars			Trucks and buses		
Year	Michigan	United States	Percentage	Michigan	United States	Percentage
			(In thousands)			
1904	9	20	45	.1	1	7
1909	64	122	52	1	5	19
1914	437	544	80	6	25	24
1919	591	1,684	35	49	126	39
1921	441	1,406	31	32	106	31
1923	1,008	3,432	29	67	281	24
1925	1,280	3,581	36	126	342	37
1927	1,460	2,826	52	91	330	28
1929	1,595	4,388	36	82	392	21
1931	675	1,921	35	40	246	16
1935	1,587	3,213	49	148	505	29
1953	2,196	6,135	36	n.a.	n.a.	n.a.
1954	1,768	5,509	32	n.a.	n.a.	n.a.
1955	2,708	7,950	34	n.a.	1,254	n.a.
1956	1,917	5,808	33	n.a.	1,012	n.a.
1957	2,118	6,120	35	180	1,100	16
1958	1,239	4,247	29	153	873	18
1959	1,658	5,599	30	184	1,124	16
1960	2,092	6,703	31	203	1,202	17
1961	1,774	5,522	32	171	1,130	15
1962	2,280	6,943	33	228	1,254	18
1963	2,590	7,644	34	265	1,464	18
1964	2,622	7,745	34	385	1,562	25
1965	3,255	9,335	35	495	1,802	27
1966	3,024	8,605	35	515	1,792	29
1967	2,600	7,413	35	459	1,611	28
1968	3,009	8,849	34	511	1,972	26
1969	2,873	8,224	35	533	1,982	27
1970	2,099	6,550	32	454	1,734	26
1971	2,836	8,584	33	587	2,088	28
1972	2,902	8,828	33	734	2,483	30
1973	3,268	9,667	34	1,012	3,015	34
1974	2,403	7,325	33	897	2,747	33
1975	2,249	6,717	33	757	2,270	33
1976	2,914	8,498	34	1,030	3,000	34
1977	2,852	9,214	31	1,077	3,489	31
1978	2,706	9,177	29	1,288	3,723	35
1979	2,582	8,434	31	996	3,046	33
1980	1,732	6,376	27	443	1,634	27
1981	2,040	6,253	33	460	1,690	27
1982	1,818	5,073	36	577	1,913	30

SOURCE: Bureau of the Census, Manufactures 1905 (Washington, D.C.: Government Printing Office, 1908), Part IV, p. 272, and similar documents for years 1909-1935; Automotive News, Almanac Issue, 1954 through 1972; Ward's Communications, Inc., Wards Automotive Yearbook, 1958 through 1972 (Detroit: annually); Motor Vehicle Manufacturers Association, special release; and the various companies, 1972-1982 Michigan figures.

n.a.: not available.

TABLE XVI-3. PRODUCTION OF MOTOR VEHICLES IN MICHIGAN, BY PLANT, AND IN THE UNITED STATES: 1976-1982

	1976	1977	1978	1979	1980	1981	1982
Dearborn, Ford	159,503	141,768	232,326	344,135	241,50[illegible]	171,056	160,075
Detroit, Cadillac	256,298	279,170	291,168	261,515	115,424	155,622	156,618
Detroit, Chevrolet[a]	31,155	31,547	38,059	27,260	18,218	28,416	31,624
Detroit, Chrysler, Jefferson Avenue[b]	88,605	94,483	45,001	--	69,089	204,704	176,384
Detroit, Chrysler, Jefferson Avenue T[b]	--	--	22,856	64,330	8,863	--	--
Detroit, Chrysler, Lynch Road	178,847	184,488	133,470	109,007	47,507	15,992	--
Flint, Buick	391,732	393,045	382,771	372,676	260,161	297,138	286,937
Flint, Chevrolet	426,164	394,952	432,238	346,447	171,152	157,886	224,187
Hamtramck, Chrysler	471,815	338,226	253,681	153,186	1,031	--	--
Kalamazoo, Checker	4,792	4,777	4,225	4,766	3,197	2,993	2,000
Lansing, Oldsmobile	399,409	380,958	382,514	492,834	329,607	448,562	442,054
Pontiac, Pontiac	288,667	308,984	306,756	285,349	142,984	150,328	106,846
Pontiac, GMC	96,543	135,220	256,749	244,829	101,352	113,405	140,279
Warren, Chrysler	304,730	329,215	327,422	149,308	77,182	92,025	101,452
Wayne, Ford	279,098	278,329	271,662	160,123	157,134	265,325	204,438
Wayne, Ford truck	171,292	186,012	210,676	163,607	66,358	67,941	79,600
Wixom, Ford	149,379	190,572	173,964	140,096	50,927	64,185	97,620
Ypsilanti, GMAD	247,061	257,550	230,022	258,232	312,938	264,333	184,962
TOTAL, car, Michigan	2,914,242	2,852,350	2,707,560	2,581,919	1,731,501	2,040,238	1,817,934
TOTAL, truck, Michigan	1,029,884	1,076,946	1,288,000	995,781	443,125	459,673	577,142
TOTAL, car, U.S.	8,497,893	9,213,654	9,176,635	8,433,662	6,375,506	6,253,138	5,073,358
TOTAL, truck, U.S.	2,999,703	3,489,128	3,722,567	3,046,331	1,634,335	1,689,778	1,912,660

SOURCE: The various companies.

a. Chevrolet Division began assembling trucks here in 1974.

b. Converted from car to truck production for the 1978 model year. Car production resumed August, 1981.

TABLE XVI-4. DETAILS OF PASSENGER CAR PRODUCTION IN UNITED STATES AND CANADIAN ASSEMBLY PLANTS

State	City	Company	Line speed[a]	Model[b]	Production[c]
			United States		
Michigan	Dearborn	Ford	50	Mustang, Capri	160,075
	Detroit	Chrysler	60[d]	Reliant, Aries, Dodge 400, Dodge 600, LeBaron, Chrysler E, Caravelle[e]	176,384
		GM	45	Cadillac[f]	156,618
	Detroit-Hamtramck	GM	70[d]	[g]	--
	Flint	GM	100[h]	Regal, LeSabre, Electra	286,937
	Kalamazoo	Checker	n.a.	Checker	2,000[i]
	Lake Orion	GM	70[d]	[j]	--
	Lansing	GM	120	Cutlass Supreme[k], Olds 88, Olds 98	442,058
	Pontiac	GM	60[d]	[l]	106,846
	Sterling Heights	Chrysler	60[d]	[m]	--
	Wayne	Ford	66	Escort, Lynx	204,438
	Wixom	Ford	33	Lincoln, Mark VI, Continental	97,620
	Ypsilanti	GM	63	Skylark	184,962
				Omega	--
State Total			772[n]		1,817,934

TABLE XVI-4. DETAILS OF PASSENGER CAR PRODUCTION IN UNITED STATES AND CANADIAN ASSEMBLY PLANTS (cont.)

State	City	Company	Line speed[a]	Model[b]	Production[c]
Ohio	Lordstown	GM	70	Cavalier, J2000	95,042
	Norwood	GM	42	Camaro, Firebird	136,418
	Lorain	Ford	60	T-Bird, X-R7	39,926
	Marysville	Honda	60	Accord	--
State Total			232		271,386
New Jersey	Linden	GM	45	Riviera, Toronado, Eldorado, Seville	158,304
	Edison	Ford	53	Escort, Lynx	81,024
State Total			98		239,328
New York	Tarrytown	GM	60	Citation, Phoenix, Skylark	176,642
Texas	Arlington	GM	56	Malibu, Monte Carlo, Regal	164,863[v]
Kansas	Fairfax	GM	60	Buick, Olds, Chevrolet	158,298
Wisconsin	Janesville	GM	60	Cavalier, Cimarron	43,001
	Kenosha	AMC	60	Spirit, Concord, Eagle, Alliance	109,549
State Total			120		152,550
Maryland	Baltimore	GM	60[w]	Malibu, Monte Carlo, Grand Prix, Bonneville	107,925

TABLE XVI-4. DETAILS OF PASSENGER CAR PRODUCTION IN UNITED STATES AND CANADIAN ASSEMBLY PLANTS (cont.)

State	City	Company	Line speed[a]	Model[b]	Production[c]
Missouri	Leeds	GM	54	Skyhawk, Firenze	106,186
	Kansas City	Ford	50	Fairmont, Zephyr	160,637
	St. Louis	Ford	36[p]	Grand Marquis	90,438
	Fenton	Chrysler	90[p]	LeBaron, 400, Reliant, Aries, Caravelle	101,448
	Wentzville	GM	70[d]	q	
State Total			264		458,709
Delaware	Wilmington	GM	70	Chevette, Acadian	198,578
	Newark	Chrysler	60	Aries, Reliant, LeBaron, Wagon	170,242
State Total			130		368,820
Georgia	Doraville	GM	60[d]	Century, Ciera	219,220
	Lakewood	GM	60[o]	Chevette, T1000	54,669[r]
	Atlanta	Ford	50	LTD, Marquis, T-bird	60,776
State Total			170		334,665
California	Van Nuys	GM	54	Camaro, Firebird	205,490
	South Gate		s		10,512[t]
	Fremont	GM	60[d]		12,967
	San José	Ford	u	EXP, LN7, Escort, Lynx	68,783
State Total			114		297,742
Illinois	Chicago	Ford	50	LTD, Marquis	140,357
	Belvidere	Chrysler	60	Horizon, TC3, Omni, 024, Rampage, Scamp	150,028
State Total			110		290,385

TABLE XVI-4 DETAILS OF PASSENGER CAR PRODUCTION IN UNITED STATES AND CANADIAN ASSEMBLY PLANTS (cont.)

State	City	Company	Line speed[a]	Model[b]	Production[c]

SOURCE: The various companies.

a. Nominal line speed in cars per hour. This can vary depending on model mix and market requirements.
b. 1983 model year.
c. 1982 model year.
d. Author's estimates.
e. Caravelle is sold in Canada.
f. Beginning 1984 model year, rear drive Cadillacs and Oldsmobiles will be sourced here.
g. Beginning 1985 model year, Cadillac Eldorado and Seville, Oldsmobile Toronado and Buick Riviera will be sourced here. The plant is still under construction.
h. "Buick City" will be rated at 75.
i. Checker ceased production of vehicles in July 1982.
j. Beginning 1984 model year, large front-drive Cadillacs and the Oldsmobile 98 will be sourced here.
k. Beginning 1984 model year, "N body" cars of Oldsmobile, Buick, and Pontiac will be sourced here.
l. During the 1982 model year, Pontiac Bonneville and Grand Prix were sourced here. During the 1984 model year the "P" car will be sourced here.
m. Large K cars will be produced beginning 1983.
n. Estimated 1986 model year capacity.
p. Ford plans to shift car production to Ontario in 1985 in order to produce its minivan in St. Louis. Chrysler is activating an idle truck plant to resume production of its rear drive cars, formerly assembled in Windsor, new home of the T115 van.
q. Plant to begin producing Buick Electras and Oldsmobile 98s in Fall 1983.
r. This plant is temporarily inactive.
s. This plant is permanently closed.
t. Joint GM-Toyota venture.
u. This plant will close permanently in May 1983.
v. Includes ElCamino and Caballero, classified as trucks in MVMA tabulations.
w. Plant is being converted to truck production.

TABLE XVI-5. FACTORY SALES OF MOTOR VEHICLES FROM CANADIAN AND U.S. PLANTS, BY CANADIAN, U.S., AND OTHER DESTINATIONS: 1966-1981

	Plants in United States				Plants in Canada				
Year	Exports to Canada	Other Exports	U.S. Domestic	U.S. Total	Exports to U.S.	Other Exports	Canada Domestic	Canada Total	U.S.-Canada Total
					Passenger cars				
1966	121,821	139,625	8,336,880	8,598,326	161,068	36,796	494,027	691,891	9,290,217
1967	246,140	120,460	7,070,164	7,436,764	326,139	34,829	354,822	715,790	8,152,554
1968	288,610	126,399	8,407,149	8,822,158	480,254	36,830	359,195	876,279	9,698,437
1969	286,392	130,847	7,806,476	8,223,715	676,765	35,948	314,890	1,027,603	9,251,318
1970	245,746	113,753	6,187,318	6,546,817	681,872	30,427	206,933	919,232	7,466,049
1971	352,130	110,748	8,121,714	8,584,592	779,769	37,654	258,034	1,075,457	9,660,049
1972	382,463	89,005	8,352,470	8,823,928	836,630	37,293	262,971	1,136,894	9,960,832
1973	476,099	102,699	9,078,849	9,657,647	862,407	41,126	322,506	1,226,039	10,883,686
1974	500,463	109,499	6,721,294	7,331,256	802,370	52,495	316,978	1,171,843	8,503,099
1975	549,353	90,199	6,073,300	6,712,852	713,407	58,149	271,689	1,043,245	7,756,097
1976	562,635	97,167	7,837,801	8,497,603	808,788	75,331	250,525	1,134,644	9,632,247
1977	586,073	102,308	8,512,468	9,200,849	831,994	87,148	236,559	1,155,701	10,356,550
1978	541,552	130,075	8,493,563	9,165,190	764,835	107,037	155,701	1,127,573	10,292,763
1979	582,097	158,991	7,678,138	8,419,226	582,386	92,728	298,060	973,174	9,392,400
1980	488,857	70,864	5,840,305	6,400,026	539,239	86,297	201,588	827,124	7,227,150
1981	454,567	51,398	5,749,375	6,255,340	516,430	102,095	153,612	772,137	7,027,477
				Trucks and buses					
1966	19,525	105,033	1,606,526	1,731,084	58,111	23,485	113,718	195,314	1,926,398
1967	35,199	89,825	1,414,438	1,539,462	98,029	26,999	100,932	225,960	1,765,422
1968	47,559	83,428	1,765,091	1,896,078	145,258	31,316	100,160	276,734	2,172,812
1969	60,251	81,745	1,781,177	1,923,179	197,551	30,318	87,300	315,169	2,238,348
1970	53,646	73,125	1,565,669	1,692,440	157,532	32,429	62,118	252,079	1,944,519

TABLE XVI-5. FACTORY SALES OF MOTOR VEHICLES FROM CANADIAN AND U.S. PLANTS, BY CANADIAN, U.S., AND OTHER DESTINATIONS: 1966-1981 (cont.)

Year	Plants in United States				Plants in Canada				U.S.-Canada Total
	Exports to Canada	Other Exports	U.S. Domestic	U.S. Total	Exports to U.S.	Other Exports	Canada Domestic	Canada Total	
				Trucks and buses (cont.)					
1971	69,026	69,812	1,914,308	2,053,146	166,307	29,924	83,107	279,338	2,332,487
1972	94,453	57,983	2,294,371	2,446,807	204,405	23,223	90,595	318,223	2,765,030
1973	120,463	72,412	1,786,813	2,979,688	215,260	27,293	112,974	355,527	3,335,215
1974	167,514	90,173	2,469,626	2,727,313	188,895	39,556	148,048	376,499	3,103,812
1975	133,701	135,701	2,002,758	2,272,160	181,165	47,742	161,158	390,065	2,662,225
1976	128,524	116,855	2,733,670	2,979,049	265,623	44,065	188,226	497,914	3,476,963
1977	135,078	127,423	3,179,020	3,441,521	347,592	47,278	210,614	605,484	4,047,005
1978	138,970	151,621	3,415,648	3,706,239	396,935	51,195	214,169	662,299	4,368,538
1979	158,394	137,231	2,741,081	3,036,706	348,231	43,861	240,983	633,075	3,669,781
1980	86,420	117,055	1,463,808	1,667,283	290,529	47,228	188,211	525,968	2,193,251
1981	89,030	98,282	1,513,140	1,700,452	303,646	58,567	152,313	514,526	2,214,978
				Total motor vehicles					
1966	141,346	244,658	9,943,406	10,329,410	219,179	60,281	607,745	887,205	11,216,615
1967	281,339	210,285	8,484,602	8,976,226	424,168	61,828	455,754	941,750	9,917,976
1968	336,169	209,827	10,172,240	10,718,236	625,512	68,146	459,355	1,153,013	11,871,249
1969	346,649	212,592	9,587,653	10,146,894	874,316	66,266	402,190	1,342,772	11,489,666
1970	299,392	186,878	7,752,987	8,239,257	839,404	62,856	269,051	1,171,311	9,419,568
1971	421,156	180,560	10,036,022	10,637,738	946,076	67,578	341,141	1,354,795	11,992,533
1972	476,916	146,988	10,646,841	11,270,745	1,041,035	60,516	353,566	1,455,117	12,725,862
1973	596,562	175,111	11,865,662	12,637,335	1,077,667	68,419	435,480	1,581,566	14,218,901
1974	667,977	199,672	9,190,920	10,058,569	991,265	92,051	465,026	1,548,342	11,606,911
1975	683,054	225,900	8,076,058	8,985,012	894,572	105,891	432,847	1,433,310	10,418,322
1976	691,159	214,022	10,571,471	11,476,652	1,074,411	119,396	438,751	1,632,558	13,109,210
1977	721,151	229,731	11,691,488	12,642,370	1,179,586	134,426	447,173	1,761,185	14,403,555
1978	680,522	281,696	11,909,211	12,871,429	1,161,770	158,232	469,870	1,789,872	14,661,301
1979	740,491	296,222	10,419,219	11,455,932	930,617	136,589	539,043	1,606,249	13,062,181
1980	575,277	187,919	7,304,113	8,067,309	829,768	133,525	389,799	1,353,092	9,420,401
1981	543,597	149,680	7,262,515	7,955,792	820,076	160,662	305,925	1,286,663	9,242,455

SOURCE: Motor Vehicle Manufacturers Association of the United States, Inc., special release.

TABLE XVI-6. U.S.-CANADA TRADE IN AUTOMOTIVE PRODUCTS, U. S. IMPORTS FROM CANADA AND CANADIAN IMPORTS FROM THE UNITED STATES: 1976-1982

(In millions of U.S. dollars)

	1976	1977	1978	1979	1980	1981	1982
U.S. exports[a]							
Cars	2,354	2,655	2,613	3,147	2,906	3,095	2,324
Trucks	985	1,057	1,158	1,654	1,044	1,122	706
Parts	5,550	6,434	7,080	7,344	6,478	7,701	7,824
Sub total	8,889	10,146	10,851	12,145	10,428	11,918	10,853
Tires and tubes	116	145	113	128	124	137	118
Total exports	9,005	10,290	10,964	12,274	10,552	12,055	10,971
U.S. imports							
Cars	3,477	3,795	4,129	3,707	3,802	4,295	5,805
Trucks	1,363	1,841	2,036	1,978	1,893	2,622	3,196
Parts	2,983	3,496	4,160	3,831	2,909	3,462	3,963
Sub total	7,823	9,132	10,326	9,516	8,603	10,379	12,964
Tires and tubes	166	135	167	200	196	239	328
Total imports	7,989	9,267	10,493	9,715	8,800	10,618	10,618
Net balance	+1,016	+1,023	+ 471	+2,558	+1,753	+1,437	+1,437

SOURCE: U.S. Department of Commerce, special release.

NOTE: Data exclude U.S.-Canadian trade in materials for use in the manufacture of automotive parts. Data are adjusted to reflect transaction values for vehicles. $1.00 Canadian = $.984001, U.S. 1975; $1.0141, U.S. 1976; $0.94095, U.S. 1977; $0.91132, U.S. 1978; $.85471, U.S. 1979; $.83560, U.S. 1980; $.84382, U.S. 1981; and $.80743, U.S. 1982.

a. Canadian import data. Parts exports (Canadian imports) adjusted to esclude tooling charges to millions of U.S. dollars as follows: 1975, $110.00; 1976, $105.00; and 1977, $72.00.

TABLE XVI-7. WHERE DOMESTIC TRUCKS WERE BUILT: 1982 MODELS

Place	Models
United States	
	General Motors
Baltimore, MD	light Chevrolet and GMC trucks
Detroit, MI	light Chevrolet & sport utility vehicles
Flint, MI	light Chevrolet and GMC trucks, sport utility vehicles
Janesville, WI	light Chevrolet and GMC trucks
Lordstown, OH	Chevrolet and GMC vans
Moraine, OH	light Chevrolet and GMC trucks
Pontiac, MI	light, medium and heavy Chevrolet and GMC trucks, buses
Shreveport, LA	light Chevrolet and GMC trucks
St. Louis, MO	light Chevrolet and GMC trucks
	Chrysler Corporation
Belvidere, IL	light duty Dodge
Warren, MI	light Dodge trucks, sport utility vehicles
	Ford Motor Company
Kansas City, MO	light trucks, super cabs
Kentucky	medium, heavy, and extra heavy trucks
Louisville, KY	light trucks
Lorain, OH	vans
Michigan	light trucks, sports utility vehicles
Norfolk, VA	light trucks
Ohio	vans
San Jose, CA	light trucks
Twin cities, MN	light trucks
	International Harvester
Fort Wayne, IN	heavy trucks
Springfield, OH	medium and heavy trucks, buses
	Mack
Allentown, PA	heavy Mack trucks
Hayward, CA	heavy Mack trucks
Macungie, PA	heavy Mack trucks

TABLE XVI-7. WHERE DOMESTIC TRUCKS WERE BUILT: 1982 MODELS (cont.)

Place	Models
	Jeep
Toledo, OH	jeep vehicles
	AM General Corporation
South Bend, IN	military and postal vehicles
	Volkswagon of America
Westmoreland, PA	light trucks
Canada	
	Chrysler Corporation
Windsor, Ont.	vans
	Ford Motor Company
Oakville, Ont.	light and medium duty trucks
	General Motors
Oshawa, Ont.	light Chevrolet and GMC trucks
Scarborough, Ont.	Chevrolet and GMC vans
London, Ont.	buses
	International Harvester
Chatham, Ont.	medium trucks, buses
Vancouver, B. C.	heavy, off-highway trucks
	Mack
Oakville, Ont.	heavy trucks

SOURCE: Automotive News, 1982 Market Data Book Issue.

TABLE XVI-8. QUARTERLY TOTAL EMPLOYMENT BY CHRYSLER, FORD, AND GENERAL MOTORS IN MICHIGAN AND THE UNITED STATES: 1975-1982

(Average of three monthly figures)

Year	Chrysler		Ford[a]		General Motors	
	Michigan	United States	Michigan	United States	Michigan	United States
1975: 1	43,632	76,687	95,721	168,634	200,406	448,721
2	59,559	99,410	104,935	190,290	210,586	474,983
3	69,545	114,654	108,117	195,703	212,095	471,185
4	73,691	122,455	108,795	195,459	233,000	525,000
1976: 1	74,086	122,281	109,767	199,711	224,000	505,000
2	79,120	127,762	111,225	202,085	242,000	544,000
3	81,087	129,539	108,576	196,799	233,000	523,000
4	82,694	135,322	114,220	207,716	256,000	574,000
1977: 1	78,225	127,420	112,218	216,631	245,000	545,000
2	83,490	135,089	117,818	223,031	265,000	586,000
3	82,701	135,039	118,775	222,119	252,000	564,000
4	84,047	137,286	124,098	233,911	280,000	624,000
1978: 1	78,744	131,066	124,187	234,635	264,000	588,000
2	82,799	136,158	127,148	239,517	278,000	619,000
3	75,187	125,989	126,300	233,314	267,000	594,000
4	81,664	135,997	135,377	253,536	289,000	643,000
1979: 1	75,316	125,899	132,298	245,253	295,000	644,000
2	70,238	118,532	129,526	240,054	296,000	650,000
3	58,182	99,754	117,630	211,763	291,000	582,000
4	55,456	98,228	111,790	196,038	288,000	602,000
1980: 1	47,273	86,341	104,321	181,595	267,000	561,000
2	43,235	78,908	92,458	160,226	237,000	499,000
3	40,733	73,248	86,528	144,068	220,000	469,000
4	44,452	80,321	100,033	172,827	253,000	538,000
1981: 1	36,921	68,024	93,873	160,225	251,000	535,000
2	39,678	73,664	93,068	166,277	255,000	550,000
3	37,894	70,629	87,785	158,139	241,000	499,000
4	37,123	68,020	84,349	143,272	239,000	511,000
1982: 1	34,122	64,498	80,373	137,440	217,000	447,000
2	33,219	62,320	87,618	152,732	215,000	459,000
3	31,258	59,234	78,801	133,399	215,000	445,000
4	31,086	59,563	80,674	136,453	202,000	413,000

SOURCE: Data made available by the automobile companies.

a. Excludes Aerospace and Communications, and Finance and Insurance subsidiaries.

n.a.: not available.

TABLE XVI-9. GENERAL MOTORS EMPLOYMENT AND DIRECT COMPENSATION IN MICHIGAN: 1973-1982

(In thousands of dollars)

Plant city	Year	Employees[a]	Direct compensations[b]
Adrain-Tecumseh	1973	981	13,822
	1974	766	10,248
	1975	825	13,707
	1976	1,083	21,000
	1977	1,255	26,300
	1978	1,427	26,300
	1979	1,443	33,800
	1980	1,285	30,700
	1981	1,618	44,900
	1982	1,537	44,100
Bay City	1973	3,824	48,313
	1974	3,423	46,538
	1975	3,006	46,663
	1976	3,586	65,950
	1977	3,805	79,979
	1978	3,868	88,330
	1979	3,598	79,917
	1980	2,500	75,900
	1981	2,581	74,400
	1982	2,241	64,400
Flint	1973	73,946	1,083,576
	1974	63,180	962,027
	1975	59,572	1,014,131
	1976	67,347	1,422,169
	1977	73,562	1,715,752
	1978	76,933	1,865,837
	1979	75,981	1,926,009
	1980	62,200	1,808,800
	1981	65,738	1,800,000
	1982	55,359	1,700,000
Grand Rapids	1973	7,417	104,622
	1974	6,636	100,954
	1975	6,030	97,383
	1976	6,862	133,658
	1977	7,353	156,518
	1978	7,652	173,752
	1979	8,169	203,694
	1980	7,400	191,200
	1981	8,143	222,000
	1982	6,645	181,000

TABLE XVI-9. GENERAL MOTORS EMPLOYMENT AND DIRECT COMPENSATION IN MICHIGAN: 1973-1982 (cont.)

(In thousands of dollars)

Plant city	Year	Employees[a]	Direct compensations[b]
Kalamazoo	1973	3,099	46,037
	1974	2,716	42,345
	1975	2,682	48,998
	1976	3,244	69,902
	1977	3,668	83,858
	1978	3,725	86,952
	1979	3,831	97,967
	1980	2,666	79,600
	1981	3,239	102,800
	1982	2,780	85,400
Lansing	1973	21,808	332,922
	1974	16,841	250,076
	1975	16,928	287,412
	1976	18,796	399,658
	1977	20,558	471,868
	1978	22,225	525,835
	1979	23,432	583,343
	1980	20,500	547,600
	1981	22,793	682,000
	1982	21,378	655,700
Livonia	1973	8,362	116,900
	1974	6,441	92,600
	1975	6,444	99,900
	1976	8,188	149,200
	1977	8,713	171,400
	1978	8,808	180,800
	1979	8,720	195,600
	1980	6,240	168,800
	1981	7,109	197,000
	1982	6,697	204,300
Milford	1973	1,644	24,200
	1974	1,727	26,300
	1975	1,700	25,435
	1976	2,175	41,900
	1977	2,386	48,200
	1978	2,256	53,400
	1979	2,790	74,500
	1980	2,685	73,700
	1981	2,609	79,300
	1982	2,524	83,200

TABLE XVI-9. GENERAL MOTORS EMPLOYMENT AND DIRECT COMPENSATION IN MICHIGAN: 1973-1982 (cont.)

(In thousands of dollars)

Plant city	Year	Employees[a]	Direct compensations[b]
Pontiac	1973	38,343	540,902
	1974	29,831	438,809
	1975	25,238	410,200
	1976	31,367	625,700
	1977	33,220	733,900
	1978	37,212	849,300
	1979	39,200	926,700
	1980	30,500	836,500
	1981	27,704	824,000
	1982	23,949	747,100
Saginaw	1973	24,565	379,148
	1974	22,266	336,584
	1975	19,969	343,241
	1976	22,661	472,011
	1977	24,307	565,624
	1978	25,765	631,277
	1979	26,127	642,468
	1980	19,500	574,700
	1981	20,755	617,600
	1982	16,831	510,500
Three Rivers	1980	1,055	29,000
	1981	1,840	52,000
	1982	1,916	60,700
Ypsilanti	1973	12,333	178,337
	1974	9,876	148,251
	1975	9,710	154,525
	1976	12,352	238,700
	1977	14,691	300,900
	1978	15,303	357,300
	1979	18,446	459,400
	1980	17,270	470,200
	1981	15,854	448,900
	1982	12,844	354,900
Statewide	1981	228,750	n.a.
	1982	178,264	5,400,000

SOURCE: General Motors Corporation, special release.

NOTE: Seperate figures are not available for the cities of Detroit and Warren because of the large number of people on temporary assignment, on the payroll of divisions scattered around the world. For 1973-1975, figures pertain to permanent employees of the proving grounds. For 1976-1982, figures are estimates that include permanent employees and personnel from other divisions on temporary assignment.

a. Annual averages of monthly wage and salary jobs at GM facilities.

b. Does not include health insurance, pension contributions, supplemental unemployment benefits, unemployment insurance, and other fringe benefits. 1980 direct compensations include supplemental unemployment benefits.

n.a.: not available.

TABLE XVI-10. TOTAL EMPLOYMENT IN THE MOTOR VEHICLE INDUSTRY, NARROWLY DEFINED, MICHIGAN AND THE UNITED STATES: 1956-1982

	Employment		
Year	Michigan (000)	United States (000)	Michigan as a percentage of U.S.
1956	411.7	792.5	52
1957	387.7	769.3	50
1958	288.5	606.5	48
1959	303.4	692.3	44
1960	311.2	724.1	43
1961	268.4	632.3	42
1962	299.2	691.7	43
1963	315.8	741.3	43
1964	329.3	752.9	44
1965	364.5	842.7	43
1966	381.9	861.6	44
1967	361.8	815.8	44
1968	382.8	873.7	44
1969	398.7	911.4	44
1970	335.3	799.0	42
1971	353.6	848.5	42
1972	369.5	874.8	42
1973	401.0	976.5	41
1974	366.1	907.7	40
1975	321.2	792.4	41
1976	357.6	881.0	41
1977	386.5	947.3	41
1978	409.6	1,004.9	41
1979	392.7	990.4	40
1980	326.3	788.8	41
1981	319.4	783.9	41
1982	287.0	690.0	42

SOURCE: Michigan Employment Security Commission, special release; and Bureau of Labor Statistics, special release.

TABLE XVI-11. EMPLOYMENT IN ALL MOTOR-VEHICLE-RELATED MANUFACTURING INDUSTRIES IN MICHIGAN: MARCH 1979 AND MARCH 1980

Industry title	Percent Motor-Vehicle-Related	Total Employment	
		March 1979	March 1980
Woven Carpets & Rugs	100.0%	*	*
Coated Fabrics, Not Rubberized	100.0	*	*
Automotive Trimmings	99.9	18,025	12,750
Fabricated Textile Products, N.E.C.	93.7	*	*
Public Building & Related Furniture	29.7	2,650	3,125
Paints, Varnishes & Allied Products	63.9	3,675	3,200
Tires & Inner Tubes	100.0	*	*
Rubber & Plastic Hose & Belting	76.2	850	250
Misc. Plastic Products	66.7	27,500	25,900
Flat Glass	92.3	*	*
Glass Products	42.9	4,175	3,900
Gaskets, Packing & Sealing Devices	60.0	1,600	1,350
Blast Furnaces, Steel Works & Rolling Mills	91.2	24,300	21,400
Gray Iron Foundries	87.3	27,725	19,500
Malleable IRon Foundries	94.0	6,150	4,325
Steel Foundries, N.E.C.	28.8	1,850	1,850
Drawing & Insulating of Nonferrous Wire	46.9	1,400	1,875
Aluminum Foundries	45.4	4,400	3,900
Hardware, N.E.C.	69.9	16,400	14,475
Screw Machine Products	48.3	6,750	6,075
Bolts, Nuts, Screws, Rivets & Washers	83.2	4,550	4,225
Iron & Steel Forgings	65.7	6,025	4,775
Automotive Stampings	100.0	58,800	45,225
Steel Springs, Except Wire	76.9	1,950	1,300
Internal Combustion Engines	86.2	*	*
Special Tools & Dies	72.6	27,450	26,275
Carburetors, Pistons, Piston Rings & Values	74.4	6,450	5,575
Radio & Television Receiving Sets	16.0	1,400	1,175
Storage Batteries	100.0	*	*
Elec. Equip. for Internal Comb. Engines	86.1	12,825	9,200
Motor Vehicles & Passenger Car Bodies	100.0	238,400	209,750
Truck & Bus Bodies	100.0	1,225	1,875
Motor Vehicle Parts & Accessories	100.0	173,575	135,325
Truck Trailers	100.0	*	*
TOTAL		707,475	592,925

SOURCE: Michigan Employment Security Commission; Bureau of Research and Statistics, Motor Vehicle and Related Industries in Michigan, Summer 1981.

* Included in totals to avoid disclosure.
N.E.C.- Not elsewhere classified.

TABLE XVI-12. NEW PASSENGER CAR AND TRUCK REGISTRATIONS IN MICHIGAN AND THE UNITED STATES, BY NAMEPLATE: 1980 AND 1981

Make	1980		1981	
	Michigan	United States	Michigan	United States
Passenger cars				
AMC[a]	14,325	150,878	14,087	133,455
Chrysler	25,368	243,643	7,317	92,105
Dodge	20,473	250,556	26,993	311,824
Plymouth	19,116	236,522	30,037	335,691
Ford	60,802	1,046,887	63,198	975,312
Lincoln	5,305	72,740	3,910	61,775
Mercury	25,786	326,361	31,362	340,868
Buick	42,353	707,544	41,918	718,304
Cadillac	11,088	212,557	11,409	224,458
Chevrolet	94,604	1,725,874	76,977	1,437,091
Oldsmobile	44,731	807,000	47,816	830,892
Pontiac	37,392	612,794	37,523	546,936
Other	60,960	2,472,839	53,211	2,435,208
TOTAL	449,487	8,760,937	445,758	8,443,919
Motor trucks				
Chrysler Corp.	10,026	256,829	7,342	181,339
Ford	29,965	784,132	26,554	697,213
Chevrolet	26,281	737,788	22,522	650,460
G.M.C.	7,238	181,252	6,738	160,703
International	2,079	74,484	1,630	61,792
Jeep truck	3,246	81,923	2,644	58,257
Pacific Car and Foundry	251	18,171	255	17,033
Mack	358	21,743	248	19,698
Freightliner	204	11,473	214	10,739
White[b]	165	7,664	49	4,762
Other	4,577	301,318	4,411	323,493
TOTAL	84,390	2,476,777	72,429	2,185,489

SOURCE: Compiled from data supplied by R.L. Polk & Company. Further reproduction not authorized without the express permission of R.L. Polk & Company.

a. Passenger cars manufactured by American Motors Corporation.

b. Trucks manufactured by White Motor Corporation.

TABLE XVI-4. DETAILS OF PASSENGER CAR PRODUCTION IN UNITED STATES AND CANADIAN ASSEMBLY PLANTS (cont.)

State	City	Company	Line speed[a]	Model[b]	Production[c]
Pennsylvania	New Stanton	VW	60	Rabbit	84,246
Oklahoma	Oklahoma City	GM	75	Citation, Century, Celebrity, (no A car)	79,109
Massachusetts	Framingham	GM	45	Celebrity, 6000	74,886
Kentucky	Bowling Greene (new)	GM	15	Corvette	22,838
TOTAL, United States			2,381[n]		5,100,326[v]
			Canada		
Ontario	Oshawa	GM	100	Chevrolet, Pontiac, Celebrity, 6000	247,274
	Oakville	Ford	60	LTD	129,037
	St. Thomas	Ford	58	Exp, LN7	134,225
	Windsor	Chrysler	r	Cordoba, Mirada, Imperial, Gran Fury, Diplomat, Caravelle, New Yorker	149,442
	Brampton	AMC	60	Concord, Eagle, Spirit	30,340
Prov. Total			278		690,318
Quebec	Ste. Therese	GM	45	Cutlass	86,374
Nova Scotia	Halifax	Volvo	6	DL, GL, GLT	10,118
TOTAL, Canada			329		786,810

TABLE XVI-13. NEW PASSENGER CAR AND NEW TRUCK REGISTRATIONS IN MICHIGAN, BY COUNTY: 1977-1982

County	1977	1978	1979	1980	1981	1982
			Passenger cars			
Alcona	430	467	479	328	353	281
Alger	362	342	322	288	261	177
Allegan	2,928	2,894	2,761	2,142	2,090	1,522
Alpena	1,519	1,416	1,342	940	882	654
Antrim	650	608	609	458	409	371
Arenac	689	781	770	512	526	396
Baraga	427	444	344	306	306	192
Barry	1,464	1,585	1,485	1,166	1,080	890
Bay	6,893	6,620	5,954	4,168	4,126	3,147
Benzie	469	485	483	329	345	290
Berrien	9,322	9,039	8,123	6,014	5,534	4,866
Branch	1,955	1,923	1,657	1,109	1,045	838
Calhoun	7,800	7,334	6,391	4,333	4,333	3,549
Cass	1,939	1,989	1,684	1,259	1,280	1,045
Charlevoix	843	916	870	687	668	560
Cheboygan	909	855	768	561	525	454
Chippewa	1,240	1,169	978	893	867	585
Clare	1,169	1,114	958	811	849	717
Clinton	2,394	2,322	2,241	1,528	1,591	1,320
Crawford	565	457	423	305	272	239
Delta	1,428	1,416	1,265	968	1,039	857
Dickinson	1,079	1,122	1,037	834	753	526
Eaton	3,820	3,710	3,607	2,476	2,618	2,037
Emmet	998	1,124	947	871	851	654
Genesee	38,121	36,292	32,941	22,534	23,047	20,332
Gladwin	854	875	866	736	682	535
Gogebic	660	669	619	558	487	389
Grand Traverse	2,804	2,880	2,903	2,272	2,245	1,910
Gratiot	1,739	1,779	1,647	1,284	1,241	929
Hillsdale	1,653	1,768	1,488	1,025	1,079	850
Houghton	1,114	1,089	994	907	861	716
Huron	1,895	1,902	1,727	1,346	1,341	985
Ingham	21,472	22,268	19,915	14,418	14,721	13,553
Ionia	2,388	2,306	2,296	1,606	1,537	1,156
Iosco	1,435	1,338	1,276	989	927	872
Iron	598	557	505	478	444	322
Isabella	1,928	1,867	1,716	1,187	1,291	1,080
Jackson	7,878	7,877	7,058	4,932	4,966	3,896
Kalamazoo	11,516	11,635	10,598	8,584	8,123	6,962
Kalkaska	400	403	404	307	260	257

TABLE XVI-13. NEW PASSENGER CAR AND NEW TRUCK REGISTRATIONS IN MICHIGAN, BY COUNTY: 1977-1982 (cont.)

County	1977	1978	1979	1980	1981	1982
Kent	25,700	27,079	25,627	20,147	18,832	15,866
Keweenaw	76	78	72	65	50	53
Lake	252	228	220	185	167	143
Lapeer	3,758	3,856	3,777	2,513	2,566	1,941
Leelanau	433	462	431	355	327	332
Lenawee	5,001	5,242	4,507	3,105	3,042	2,380
Livingston	5,381	5,586	5,447	3,933	4,155	3,315
Luce	291	255	287	204	162	136
Mackinac	448	402	396	327	317	253
Macomb	64,854	65,443	62,197	46,314	47,491	41,167
Manistee	1,086	1,056	948	699	735	548
Marquette	2,974	2,992	2,740	2,287	2,531	1,938
Mason	1,038	1,018	1,086	778	753	574
Mecosta	1,228	1,258	1,204	950	906	679
Menominee	875	836	791	627	564	451
Midland	3,826	3,650	3,565	2,913	2,961	2,466
Missaukee	391	369	375	293	293	232
Monroe	6,878	6,465	6,149	4,044	4,500	4,005
Montcalm	2,157	2,304	2,330	1,650	1,651	1,236
Montmorency	437	396	401	270	276	255
Muskegon	6,432	6,516	6,289	4,960	4,410	3,405
Newaygo	1,284	1,233	1,183	1,021	930	765
Oakland	100,458	104,638	97,597	75,764	75,490	66,959
Oceana	807	829	877	731	616	454
Ogemaw	671	721	643	508	463	418
Ontonagon	396	395	392	363	309	234
Osceola	810	794	860	603	632	535
Oscoda	223	223	206	135	151	164
Otsego	823	796	723	638	611	503
Ottawa	7,557	7,716	7,552	6,022	5,947	4,621
Presque Isle	618	594	589	409	434	306
Roscommon	1,004	1,013	916	682	715	669
Saginaw	14,876	14,374	12,796	9,067	9,335	7,765
St. Clair	6,676	6,673	5,969	4,345	4,377	3,597
St. Joseph	2,728	2,824	2,490	1,946	1,867	1,466
Sanilac	2,040	2,169	1,825	1,348	1,279	926
Schoolcraft	439	424	443	327	295	230
Shiawassee	4,159	4,311	4,054	2,664	2,821	2,113
Tuscola	3,094	2,999	2,945	2,156	2,162	1,525
Van Buren	2,865	2,977	2,749	2,156	1,965	1,541

TABLE XVI-13. NEW PASSENGER CAR AND NEW TRUCK REGISTRATIONS IN MICHIGAN, BY COUNTY: 1977-1982 (cont.)

County	1977	1978	1979	1980	1981	1982
Washtenaw	16,913	17,940	15,123	11,325	11,612	10,497
Wayne	211,471	211,886	187,021	131,958	129,433	105,322
Wexford	1,048	1,028	1,031	830	827	563
State owned	1,899	2,035	2,169	1,416	943	1,183
TOTAL	662,223	669,700	611,443	448,071	445,758	374,643
Truck						
Alcona	222	232	173	109	73	110
Alger	301	266	180	122	82	102
Allegan	1,735	1,861	1,532	775	601	647
Alpena	784	766	633	320	228	259
Antrim	327	377	270	161	114	129
Arenac	346	394	337	143	140	188
Baraga	270	294	204	104	92	110
Barry	897	917	716	382	270	344
Bay	2,345	2,525	1,764	924	813	1,057
Benzie	266	293	180	90	75	110
Berrien	3,706	4,127	3,029	1,530	1,233	1,559
Branch	1,050	1,222	832	466	419	430
Calhoun	2,406	2,744	1,988	1,026	877	1,063
Cass	1,168	1,262	937	406	404	493
Charlevoix	554	538	388	204	132	193
Cheboygan	473	436	335	141	132	187
Chippewa	708	671	489	282	246	285
Clare	657	697	470	282	276	330
Clinton	1,165	1,296	966	435	397	519
Crawford	279	262	206	110	73	113
Delta	708	734	542	314	290	399
Dickinson	632	666	586	321	281	248
Eaton	2,042	2,142	1,454	736	559	799
Emmet	565	548	439	230	165	215
Genesee	10,430	11,701	7,347	3,566	3,290	4,299
Gladwin	544	582	396	220	210	247
Gogebic	389	402	324	223	179	178
Grand Traverse	1,524	1,568	1,189	772	673	735
Gratiot	865	899	736	364	330	365
Hillsdale	911	1,020	712	347	292	321
Houghton	550	559	401	286	177	200
Huron	765	905	707	411	378	341
Ingham	5,705	6,818	5,222	2,513	2,012	2,488
Ionia	1,179	1,363	995	522	462	501
Iosco	619	686	434	257	198	266

TABLE XVI-13. NEW PASSENGER CAR AND NEW TRUCK REGISTRATIONS IN MICHIGAN, BY COUNTY: 1977-1982 (cont.)

County	1977	1978	1979	1980	1981	1982
Iron	393	368	343	234	126	173
Isabella	792	980	718	433	446	455
Jackson	2,736	3,373	2,585	1,257	991	1,170
Kalamazoo	3,434	4,052	3,073	1,697	1,399	1,552
Kalkaska	414	382	306	212	209	240
Kent	7,787	9,621	8,125	4,362	3,212	4,096
Keweenaw	38	28	27	25	6	14
Lake	145	137	135	72	68	58
Lapeer	1,916	2,305	1,519	650	530	735
Leelanau	204	219	157	93	73	107
Lenawee	2,237	2,543	1,629	778	656	878
Livingston	2,180	2,445	1,770	810	718	964
Luce	191	186	126	95	58	84
Mackinac	283	262	183	104	91	117
Macomb	14,322	17,645	12,206	7,984	8,086	9,408
Manistee	527	544	389	224	153	249
Marquette	1,782	1,974	1,238	760	665	683
Mason	512	582	489	239	169	228
Mecosta	654	709	535	312	299	361
Menominee	404	452	374	232	169	151
Midland	1,305	1,455	1,060	563	529	684
Missaukee	302	310	233	152	143	132
Monroe	2,584	3,213	1,658	973	940	1,272
Montcalm	1,175	1,[illegible]31	1,043	546	476	589
Montmorency	270	232	198	92	61	95
Muskegon	2,480	3,133	2,310	1,258	938	962
Newaygo	689	748	575	327	299	338
Oakland	19,360	22,617	15,771	8,951	7,874	10,086
Oceana	558	627	510	281	183	209
Ogemaw	390	431	343	190	162	205
Ontonagon	247	234	189	153	121	105
Osceola	548	615	481	252	255	288
Oscoda	155	158	111	54	40	72
Otsego	501	569	434	234	208	218
Ottawa	2,839	3,476	2,839	1,435	1,198	1,421
Presque Isle	342	407	297	156	130	145
Roscommon	476	556	344	236	188	229
Saginaw	4,336	4,789	3,488	1,880	1,631	1,990
St. Clair	2,382	2,856	1,861	1,009	923	1,019
St. Joseph	1,399	1,616	1,145	649	544	662

TABLE XVI-13. NEW PASSENGER CAR AND NEW TRUCK REGISTRATIONS IN MICHIGAN, BY COUNTY: 1977-1982 (cont.)

County	1977	1978	1979	1980	1981	1982
Sanilac	954	1,195	828	430	351	377
Schoolcraft	286	252	213	136	105	119
Shiawassee	1,999	2,126	1,479	676	644	683
Tuscola	1,591	1,762	1,226	649	567	653
Van Buren	1,567	1,808	1,489	745	593	600
Washtenaw	4,129	4,924	3,264	1,797	1,567	2,131
Wayne	31,827	39,885	27,721	19,891	16,783	23,758
Wexford	557	642	456	238	226	247
State owned	588	632	647	770	453	307
TOTAL	173,288	203,329	144,606	83,620	72,429	91,159

SOURCE: R.L. Polk & Co., Motor Statistical Division, special release.

XVII. TRANSPORTATION

The Interstate Commerce Commission in its various publications, especially Transport Statistics in the United States, gives extensive information about railroads. The Association of American Railroads also collects railway statistics.

Data on the Michigan highway system are obtained from the reports of the Michigan State Highway Commission. Information on drivers' licenses and the registration of motor vehicles is given in the reports of the Michigan Department of State. The Michigan Department of State Police collects statistics on the number of motor vehicle traffic accidents in Michigan. The Bureau of Public Roads of the U.S. Department of Commerce publishes an annual report, Highway Statistics, that gives a great deal of information about the nation's public roads.

The Federal Aviation Agency releases a number of publications, including the FAA Statistical Handbook of Aviation, FAA Air Traffic Activity, and Census of U.S. Civil Aircraft, which contain a wealth of information pertaining to aviation activities.

Information regarding freight traffic on Michigan waterways can be found in Waterborne Commerce of the United States, a publication of the Corps of Engineers of the U.S. Department of the Army.

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XVII. TRANSPORTATION

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TABLE XVII-1. DISTRIBUTION OF MICHIGAN TRANSPORTATION FUND, FISCAL YEARS: 1961-1981

(Millions of dollars)

Fiscal year	State trunkline fund	Comprehensive transportation fund	Counties	Municipalities	Total
1961	100	--	74	38	212
1962	102	--	76	39	217
1963	106	--	79	41	226
1964	111	--	83	43	237
1965	118	--	88	45	251
1966	125	--	93	48	266
1967	129	--	96	50	309
1968[a]	148	--	104	57	309
1969	164	--	122	71	357
1970	175	--	129	76	380
1971	181	--	134	79	394
1972[b]	193	--	143	84	420
1973	215	18	164	94	491
1974	231	21	185	103	540
1975	228	22	183	102	537
1976[c]	277	27	223	125	652
1977	246	23	198	110	578
1978	249	24	201	112	586
1979[d]	272	59	245	136	712
1980[e]	260	56	236	131	684
1981	239	52	237	121	628

SOURCE: The Michigan State Transportation Commission, special release.

a. Change in registration fees and motor fuel taxes.
b. Change in gasoline tax.
c. Covers 7/1/75 to 9/30/76.
d. Change in motor fuel taxes.
e. Change in diesel fuel tax.

NOTE: Following is a chronology of Michigan motor vehicle taxes and fees.

1905 - Public Act 196 of 1905 - License Plates
Rate: $2.00 per automobile (not annually).
Manufacturers get duplicates at 50 cents each.
License transfers are $1.00 each.
Chauffeurs pay $1.00 for an operator's license.
Disposition: After deduction of administrative charges, the balance is to be applied to furthering good roads for the benefit of the State at large.

1907 - Public Act 304 of 1907. Change in fees.
Rate: $1.00 per car and 50 cents for annual renewals.
Transfers are $1.00.
Manufacturers pay $5.00 for five sets of plates and 50 cents for duplicates.

NOTE: (cont.)

1909 - Public Act 318 of 1909. Change in fees.
Rate: $3.00 per car annually and $1.00 for duplicates.
Transfers are $1.00.
Manufacturer pays $10.00 for first plates and $2.00 for each duplicate set.
Chauffeurs pay $2.00 annually.
Disposition: To State General Fund.

1916 - Public Act 302 of 1915. Effective January 1, 1916. Change in fees.
Rate: Cars operated by gas or steam - 25 cents per horsepower plus 25 cents per 100 pounds of weight. Electric cars, $1.00 per horsepower plus 25 cents per 100 pounds. Trucks, gas or steam, 15 cents per horsepower plus 15 cents per 100 pounds. Trucks, electric, 50 cents per horsepower and 25 cents per 100 pounds.
Duplicate plates $1.00.
Annual renewals required at same rates as above.
Manufacturers or dealers pay $50.00 for the first five cars, and $10.00 each thereafter.
Transfers $1.00 each.
Disposition: To the counties, 50% of the license plate fees, divided in proportion to their origin. Balance to State Highway Department.

1919 - Public Act 383 of 1919. Change in fees.
Rate: Changed to 25 cents per horsepower plus 35 cents per 100 pounds on all classes of automobiles.
Public Act 368 of 1919. Operators License Act.
Rate: 50 cents for license to drive
Disposition: To General Fund.

1925 - Public Act 1 of 1925. Change in fees.
Rate: Passenger cars - 55 cents per 100 pounds of weight.
Trucks - 65 cents per 100 pounds up to 2,500 pounds.
80 cents per 100 pounds from 2,500 to 4,000 pounds.
$1.00 per 100 pounds from 4,000 to 6,000 pounds.
$1.25 per 100 pounds over 6,000 pounds.
Trailers - 50 cents and $1.00. Motorcycles $5.00. Motor bicycles $2.50, transfers $1.00.
Disposition: $6,000,000 of weight tax to counties on basis of origin. Balance to State Highway Fund.

1925 - Public Act 2 of 1925. Gasoline Tax.
Rate: Two cents per gallon on gasoline used by motor vehicles.
Disposition: All to State Highway Department except $1,500,000 to counties in 1925 and $2,000,000 to counties in 1926 and annually thereafter.

1927 - Public Act 150 of 1927. Change in Gasoline Tax.
Rate: 3 cents per gallon.
Disposition: To counties $2,000,000 per year. Also an amount equal to 1/2 the weight tax, minus $6,000,000. This is divided, 7/8 on the basis of origin of the weight tax and 1/83 of 1/8 to each county. $2,000 per mile of city and village trunkline maintenance. Balance to State Highway Fund.

NOTE: (cont.)

1931 - Public Act 130 of 1931. McNitt Act.
Apportions to counties for maintenance and improvement of McNitt Roads, payable out of gas tax.
1932 - $2,000,000
1933 - $2,500,000
1934 - $3,000,000
1935 - $3,500,000
1936 - $4,000,000 and annually thereafter.
Public Act 91 of 1931. Change in operator's and chauffeur's licenses.
Rate: $1.00 for operators, $2.00 for chauffeurs. Operator license renewal every three years. Chauffeurs license renewable annually.

1934 - Public Act 7 of 1934. Change weight tax.
Rate: Passenger cars 35 cents per 100 pounds.
Trucks 65 cents up to 2,500 pounds.
80 cents up to 2,500 to 4,000 pounds.
$1.00 - 4,000 to 6,000 pounds.
$1.25 - over 6,000 pounds.
Disposition: To counties 100 percent.

1947 - Public Act 319 of 1947. Diesel fuel tax.
Diesel fuel tax at 5 cents per gallon.
Disposition: To State Highway Fund.

1951 - Public Act 54 of 1951. Change in fuel tax rates.
Gasoline tax increased to 4-1/2 cents per gallon.
Diesel Fuel tax increased to 6 cents per gallon.
Disposition: To Motor Vehicle Highway Fund
Distribution: 37 percent to counties
19 percent to cities.
44 percent to State Trunkline Fund
Public Act 55 of 1951. Change registration fees.
Rate: Trucks - 65 cents per 100 pounds for 0-2,500 pounds to $2.00 per 100 pounds for over 15,000 pounds.
Road Tractor or truck tractor - 65 cents per 100 pounds for 0-2,500 pounds to $2.00 per 100 pounds for over 10,000 pounds.

1953 - Public Act 147 of 1953. Liquid Petroleum Gasoline tax rate.
Liquid Petroleum Gasoline taxed at 4-1/2 cents per gallon.
Disposition: To Motor Vehicle Highway Fund.

1967 - Public Act 3 of Extra Session of 1967. Changes registration fees.
Rate: Automobiles - 55 cents per 100 pounds. Minimum fee of $12.00.
Trucks - from 80 cents per 100 pounds for 0-2,500 pounds to $2.50 per 100 pounds for 15,000 pounds and over.
Road or truck tractor - elected gross weight from $150 for 0-24,000 pounds to $980 for 130,000 pounds and over.
Disposition: To Motor Vehicle Highway Fund.

1967 - Public Act 5 of Extra Session of 1967. Change fees.
Gasoline tax increased to 7 cents per gallon.
Diesel Fuel tax increased to 7 cents per gallon.
Liquid Petroleum Gasoline tax increased to 7 cents per gallon.

1969 - Public Act 309 of 1969. Change fees.
Rate: Road or truck tractor - elected gross weight.
From $243 for 0-24,000 pounds to $1,660 for 160,001 pounds and over.
Disposition: Motor Vehicle Highway Fund.

NOTE: (cont.)

1972 - Public Act 327 of 1972. Change fees.
Gasoline tax increased to 9 cents per gallon.
Liquid Petroleum Gasoline tax increased to 9 cents per gallon.
Diesel tax stays at 7 cents.
Disposition: To Motor Vehicle Highway Fund.

1978 - Public Act 426 of 1978. Effective January 1, 1979. Change in fees.
Gasoline tax increased to 11 cents per gallon.
Diesel Fuel tax increased to 9 cents per gallon.

1978 - Public Act 427 of 1978. Changes in fees.
Rate: Automobile registration from $20 for 0-3,000 pounds to $74 for 10,000 pounds and 74 cents per 100 pounds over 10,000 pounds. Trucks - from $1.08 per 100 pounds for 0-2,500 pounds to $3.38 per 100 pounds for 1[illegible],001 pounds and over. Road or truck tractor - elected gross weight. From $243 for 0-24,000 pounds to $1,660 for 160,001 pounds and over.
Disposition: To Michigan Transportation Fund
Distribution: 19 percent to cities and villages
34.3 percent to counties
46.7 percent to Department of Transportation
(17.78 percent to comprehensive Transportation)
(82.22 percent to Trunkline Fund)

1980 - Public Act 118 of 1980. Change in fees.
Diesel fuel tax increased to 11 cents per gallon.
Motor carrier may receive 6 cents per gallon discount by purchasing permit ($92 for Michigan resident - $12 for non-resident). Carriers not purchasing diesel fuel in Michigan must report and pay a road tax equivalent to the 5 cents tax paid by carriers licensed within the State.

TABLE XVII-2. EXISTING MUNICIPAL AND RURAL ROAD MILEAGE, BY TYPE AND BY GOVERNMENTAL LEVEL WITH PRIMARY JURISDICTION, MICHIGAN AND THE UNITED STATES: 1971-1980

		Rural						
		Type			Governmental level with primary jurisdiction			Total rural and municipal
Year	Municipal	Surfaced	Non-surfaced	Total	State	Local	Federal[a]	
				MICHIGAN				
1971	20,115	77,312	17,637	94,949	7,977	86,970	2	115,064
1972	20,232	80,732	17,096	97,828	7,968	87,200	2,660	118,060
1973	19,601	81,809	16,900	98,709	8,014	88,035	2,660	118,310
1974	19,916	81,935	16,740	98,675	8,243	87,972	2,460	118,591
1975	19,982	82,771	16,037	98,808	8,300	88,048	2,460	118,790
1976	20,053	83,624	15,321	98,945	8,316	88,169	2,460	118,998
1977	20,097	48,062[b]	51,006[b]	99,068	8,336	88,272	2,460	119,165
1978	20,190	48,264	50,905	99,169	8,345	88,364	2,460	119,359
1979	20,274	49,993	49,813	99,806	8,800	88,546	2,460	120,080
1980	22,257	n.a.	n.a.	91,979	7,739	84,240	0	117,236
				United States				
1971	593,047	2,415,878	750,017	3,165,895	712,785	2,256,271	196,839	3,758,942
1972	613,426	2,433,205	740,082	3,173,287	712,093	2,252,023	209,171	3,786,713
1973	631,129	2,436,070	739,684	3,175,754	710,461	2,249,446	215,747	3,806,883
1974	637,655	2,452,247	725,905	3,178,152	706,295	2,247,709	224,148	3,815,807
1975	639,550	2,483,355	715,241	3,198,596	710,797	2,260,544	227,255	3,838,146
1976	648,321	2,508,903	700,132	3,209,035	711,406	2,263,788	233,841	3,857,356
1977	687,328	2,498,428	681,411	3,179,839	702,215	2,235,670	242,147	3,867,400[c]
1978	694,655	2,534,409	655,999	3,190,408	704,421	2,255,526	230,850	3,885,452
1979	694,274	2,498,282	725,428	3,223,710	697,821	2,281,353	244,371	3,917,819
1980	624,053	n.a.	n.a.	3,331,334	701,846	2,269,770	262,010	3,955,387

SOURCE: Federal Highway Administration, Highway Statistics, 1969 through 1979 (Washington, D.C.: annually), Tables HM-10 and 3 (1979).

a. Comprises mileage of roads not forming a part of state or local highway systems.

b. The decrease in surfaced roads in Michigan is due to the surface type reclassification of approximately 36,000 miles of county roads.

c. 233 miles were unclassified by surface.

TABLE XVII-3. MOTOR VEHICLE REGISTRATION IN MICHIGAN, BY TYPE AND COUNTY: FISCAL YEAR ENDING 30 SEPTEMBER 1982

County	Passenger	Commercial	Trailer	Motorcycle	Total
Alcona	5,969	2,286	1,659	320	10,234
Alger	4,191	2,137	1,101	321	7,750
Allegan	41,697	15,813	9,460	2,875	69,845
Alpena	16,951	6,459	4,428	932	28,770
Antrim	9,406	3,455	2,495	612	15,968
Arenac	7,881	3,328	2,347	468	14,024
Baraga	4,055	1,860	917	239	7,071
Barry	22,850	8,645	5,464	1,755	38,714
Bay	64,436	16,372	15,277	3,175	99,260
Benzie	6,319	2,358	1,721	442	10,840
Berrien	89,044	24,516	14,379	4,597	132,536
Branch	19,966	7,799	5,812	1,682	35,259
Calhoun	76,747	19,086	13,750	5,068	114,651
Cass	24,396	19,203	5,059	1,677	40,335
Charlevoix	10,942	4,038	2,726	752	18,458
Cheboygan	11,271	4,392	3,192	781	19,636
Chippewa	13,319	5,530	3,647	818	23,314
Clare	12,167	5,181	3,475	719	21,542
Clinton	28,195	9,645	6,668	2,086	46,594
Crawford	4,957	2,025	1,386	288	8,656
Delta	20,310	8,069	6,101	1,281	35,761
Dickinson	13,632	5,512	3,687	959	23,790
Eaton	44,076	12,245	9,112	3,153	68,586
Emmet	13,487	4,637	2,956	755	21,835
Genesee	246,568	53,046	40,679	12,367	352,660
Gladwin	9,917	4,381	3,270	567	18,135
Gogebic	9,173	3,846	1,952	521	15,492
Gd. Traverse	34,421	10,017	7,973	1,882	54,293
Gratiot	19,551	7,232	5,175	1,483	33,441
Hillsdale	20,554	8,411	5,256	1,568	35,789
Houghton	15,529	5,142	2,450	925	24,046
Huron	19,478	8,016	5,322	1,270	34,086
Ingham	148,027	30,703	20,620	8,044	207,394
Ionia	24,259	8,433	5,494	1,890	40,076
Iosco	15,187	5,063	4,044	905	25,199
Iron	6,974	3,310	1,859	310	12,453
Isabella	21,227	7,373	4,809	1,485	34,900
Jackson	78,490	21,170	13,946	4,699	118,305
Kalamazoo	117,963	25,424	17,354	6,268	167,009
Kalkaska	5,932	3,213	1,932	411	11,488

TABLE XVII-3. MOTOR VEHICLE REGISTRATION IN MICHIGAN, BY TYPE AND COUNTY: FISCAL YEAR ENDING 30 SEPTEMBER 1982 (cont.)

County	Passenger	Commercial	Trailer	Motorcycle	Total
Kent	262,755	54,975	49,902	14,034	381,666
Keweenaw	1,047	387	199	48	1,681
Lake	3,882	1,729	1,056	200	6,867
Lapeer	34,046	11,911	7,260	2,577	55,794
Leelanau	8,042	2,694	2,186	386	13,308
Lenawee	46,153	14,956	9,534	3,042	73,685
Livingston	54,026	14,218	9,653	2,999	80,896
Luce	2,937	1,574	1,103	153	5,767
Mackinac	4,895	2,236	1,409	360	8,900
Macomb	441,835	58,137	46,346	14,136	560,454
Manistee	12,041	4,276	2,890	711	19,918
Marquette	33,254	11,781	6,317	2,494	53,846
Mason	13,466	4,976	3,212	993	22,647
Mecosta	14,043	5,347	3,410	801	23,601
Menominee	13,004	5,383	3,505	894	22,786
Midland	43,117	9,888	9,793	2,348	65,146
Missaukee	5,106	2,717	1,533	369	9,725
Monroe	69,914	19,480	14,438	4,158	107,990
Montcalm	24,031	9,194	5,979	1,511	40,715
Montmorency	4,130	2,079	1,360	250	7,819
Muskegon	84,567	20,748	15,856	5,324	126,495
Newaygo	17,388	7,681	4,640	1,397	31,106
Oakland	635,725	90,887	61,724	21,251	809,587
Oceana	10,630	4,675	2,403	718	18,426
Ogemaw	8,969	4,455	2,810	537	16,771
Ontonagon	4,859	2,341	1,363	292	8,855
Osceola	9,221	4,157	2,363	591	16,332
Oscoda	3,907	1,844	1,209	228	7,188
Otsego	8,299	3,442	2,198	466	14,405
Ottawa	88,847	22,467	19,440	5,625	136,379
Presque Isle	6,817	3,126	1,934	411	12,288
Roscommon	10,303	3,665	3,181	559	17,708
Saginaw	122,663	26,421	22,371	5,133	176,588
St. Clair	74,179	19,276	12,818	3,952	110,225
St. Joseph	29,278	10,585	6,368	2,213	48,444
Sanilac	19,777	7,861	4,483	1,452	33,573
Schoolcraft	4,233	1,876	1,334	292	7,735
Shiawassee	35,992	11,672	7,525	2,650	57,839
Tuscola	28,110	11,539	8,169	2,087	49,905
Van Buren	32,829	12,470	6,003	2,151	53,453

TABLE XVII-3. MOTOR VEHICLE REGISTRATION IN MICHIGAN, BY TYPE AND COUNTY: FISCAL YEAR ENDING 30 SEPTEMBER 1981 (cont.)

County	Passenger	Commercial	Trailer	Motorcycle	Total
Washtenaw	140,316	24,641	14,697	6,203	185,857
Wayne	1,208,478	156,927	103,197	33,439	1,502,041
Wexford	12,800	4,657	3,484	818	21,759
Nonresident	25,666	10,329	18,765	191	54,951

SOURCE: Michigan Department of State, special release.

TABLE XVII-4. MOTOR VEHICLE REGISTRATION IN MICHIGAN, BY TYPE: 1977-1982

Type	1977	1978	1979	1980	1981	1982
Passenger	4,890,094	5,126,907	5,162,138	5,220,972	4,848,924	5,075,091
Commercial	987,822	1,081,990	1,122,898	1,095,634	1,047,504	1,095,057
Trailer	811,224	818,232	775,261	760,533	721,381	778,374
Motorcycle	260,816	242,706	251,210	254,129	243,858	230,794
Municipal	9,571	n.a.	n.a.	n.a.	n.a.	n.a.
TOTAL	6,959,527	7,269,835	7,311,507	7,331,268	6,861,667	7,179,316

SOURCE: Michigan Department of State, special release.

n.a.: not available.

TABLE XVII-5. MOTOR VEHICLE ACCIDENTS AND MILEAGE AND DEATH RATE IN MICHIGAN: 1942-1981

Year	Deaths	Injuries	Accidents	Estimated mileage (millions)	Death rate[a]
1942	1,325	28,967	100,125	13,900.3	9.5
1943	992	21,988	71,450	10,530.0	9.4
1944	1,034	23,401	72,013	10,651.0	9.7
1945	1,150	27,755	83,160	11,915.6	9.7
1946	1,470	34,479	110,531	16,191.1	9.1
1947	1,447	38,195	137,619	17,661.1	8.2
1948	1,512	40,892	140,172	19,069.2	7.9
1949	1,441	41,647	143,197	19,990.4	7.2
1950	1,605	45,734	161,750	21,494.5	7.5
1951	1,640	48,418	176,587	22,668.1	7.2
1952	1,736	49,119	160,829	23,093.1	7.5
1953	1,905	57,834	184,174	25,346.9	7.5
1954	1,793	56,444	185,534	26,041.2	6.9
1955	2,016	62,234	196,812	28,282.5	7.1
1956	1,746	61,158	197,995	28,429.3	6.1
1957	1,548	60,067	191,915	29,252.2	5.3
1958	1,382	57,767	177,934	29,411.3	4.7
1959	1,473	64,873	198,771	30,679.0	4.8
1960	1,604	91,026	209,724	31,842.4	5.0
1961	1,567	93,350	199,973	32,101.5	4.9
1962	1,574	108,143	233,078	34,498.0	4.6
1963	1,887	126,896	261,794	36,452.2	5.2
1964	2,122	144,623	284,444	38,617.6	5.5
1965	2,136	155,258	310,598	40,857.4	5.2
1966	2,298	156,694	302,880	43,940.1	5.2
1967	2,137	151,297	299,004	45,053.6	4.7
1968	2,392	160,413	305,495	48,047.4	5.0
1969	2,487	175,400	331,223	50,904.9	4.9
1970	2,177	161,719	313,715	53,148.1	4.1
1971	2,152	157,664	314,015	55,539.7	3.9
1972	2,258	178,929	359,745	57,817.1	3.9
1973	2,213	169,485	350,864	58,478.4	3.8
1974	1,825	141,132	324,763	55,748.7	3.4
1975	1,811	147,299	333,560	56,260.5	3.2
1976	1,955	162,894	365,600	61,827.4	3.2
1977	1,950	166,389	374,751	64,800.0	3.0
1978	2,076	169,202	389,193	67,375.0	3.1
1979	1,849	162,571	366,435	64,882.0	2.9
1980	1,774	144,972	315,594	61,190.0	2.9
1981	1,589	136,455	302,831	62,000.0	2.6

SOURCE: Michigan Department of State Police, Michigan Traffic Accident Facts, 1979 (Lansing: 1980), p. 56 and special release (1980 and 1981 data).

a. Deaths per 100 million miles of travel.

TABLE XVII-6. NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENTS, PERSONS KILLED AND PERSONS INJURED, IN MICHIGAN, BY TYPE OF ACCIDENT: 1981

Type of accident	Number of accidents				Number of persons			
						Injured		
	Fatal	Injury	Property damage	Total	Killed	Incapacitated	Nonincapacitated	Possibly[a]
Motor vehicle:								
Overturned	114	5,646	3,818	9,578	118	1,701	3,157	2,674
Other noncollision	14	671	1,085	1,770	14	206	338	190
Motor vehicle collision with:								
Pedestrian	258	4,047	143	4,448	262	1,495	1,532	1,323
Motor vehicle in transport	588	56,252	126,722	183,562	677	10,288	24,971	57,526
Motor vehicle - other roadway	10	40	28	78	12	29	18	49
Parked motor vehicle	21	3,273	26,617	29,911	21	487	1,771	1,773
Railroad train	18	168	173	359	21	78	74	68
Pedalcyclist	44	3,705	557	4,306	44	759	1,897	1,279
Animal	3	712	20,380	21,095	3	115	319	395
Fixed object	380	16,755	29,859	46,994	414	4,660	9,560	7,556
Other object	3	119	608	730	3	24	76	67
TOTAL	1,453	91,388	209,990	302,831	1,589	19,842	43,713	72,900

SOURCE: Michigan Department of State Police, special release.

a. No visible injury but complaint of pain or momentary unconciousness.

TABLE XVII- 7. NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENTS, PERSONS KILLED, AND PERSONS INJURED IN MICHIGAN, BY COUNTY: 1981

County	Accidents							Persons	
	Fatal	Injury	Property damage	Inter-state	Local street	State route	Total	Killed	Injured
Alcona	2	88	243	0	202	131	333	3	145
Alger	2	90	271	0	148	215	363	2	125
Allegan	23	637	1,621	128	1,487	666	2,281	25	979
Alpena	4	261	677	0	526	416	942	4	380
Antrim	2	150	347	0	288	211	499	2	211
Arenac	8	145	474	48	302	277	627	10	249
Baraga	2	71	222	0	169	126	295	2	116
Barry	10	368	1,187	0	1,087	478	1,565	13	558
Bay	16	1,097	2,445	184	2,065	1,309	3,558	18	1,567
Benzie	1	111	322	0	240	194	434	2	169
Berrien	37	1,533	4,115	780	3,512	1,393	5,685	45	2,262
Branch	6	332	967	119	801	385	1,305	6	516
Calhoun	25	1,460	3,740	737	3,457	1,031	5,225	26	2,135
Cass	10	374	1,198	0	913	669	1,582	14	523
Charlevoix	5	174	534	0	367	346	713	8	260
Cheboygan	1	224	426	66	358	227	651	2	318
Chippewa	10	194	702	207	571	128	906	13	285
Clare	9	243	851	0	541	562	1,103	12	380
Clinton	10	490	1,354	148	1,179	527	1,854	12	731
Crawford	2	135	404	161	224	156	541	2	200
Delta	6	397	1,204	0	1,038	569	1,607	6	596
Dickinson	6	207	732	0	436	509	945	9	310
Eaton	13	817	1,844	274	1,251	1,149	2,674	16	1,243
Emmet	2	269	700	8	498	465	971	3	415
Genesee	69	4,284	9,039	803	9,325	3,264	13,392	72	6,382

TABLE XVII-7. NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENTS, PERSONS KILLED, AND PERSONS INJURED IN MICHIGAN, BY COUNTY: 1981 (cont.)

County	Accidents							Persons	
	Fatal	Injury	Property damage	Inter-state	Local street	State route	Total	Killed	Injured
Gladwin	3	156	559	0	399	319	718	3	248
Gogebic	4	170	597	0	426	345	771	4	230
Grand Traverse	14	770	1,667	0	1,547	904	2,451	14	1,165
Gratiot	8	333	938	0	671	608	1,279	8	537
Hillsdale	12	362	1,031	0	882	523	1,405	13	601
Houghton	4	233	903	0	430	710	1,140	5	322
Huron	12	286	925	0	652	571	1,223	14	416
Ingham	24	2,635	7,163	1,148	5,707	2,967	9,822	25	3,844
Ionia	8	471	1,352	138	1,185	508	1,831	8	733
Iosco	6	247	811	0	549	515	1,064	6	379
Iron	2	97	382	0	231	250	481	2	141
Isabella	14	453	1,257	0	1,109	615	1,724	16	695
Jackson	35	1,490	3,974	852	3,678	969	5,499	39	2,191
Kalamazoo	22	1,907	5,870	735	5,628	1,436	7,799	23	2,655
Kalkaska	3	131	367	0	266	235	501	3	201
Kent	64	4,408	11,882	774	11,384	4,196	16,354	68	6,309
Keweenaw	0	22	61	0	37	46	83	0	34
Lake	5	86	369	0	2388	172	460	5	126
Lapeer	12	572	1,358	0	1,271	671	1,942	13	855
Leelanau	3	150	308	0	240	221	461	3	208
Lenawee	17	857	2,127	0	1,712	1,289	3,001	18	1,231
Livingston	24	848	1,792	410	1,799	455	2,664	28	1,294
Luce	2	52	164	0	113	105	218	2	77
Mackinac	11	101	338	38	160	252	450	12	152
Macomb	77	6,612	12,327	809	12,676	5,531	19,016	85	9,949

TABLE XVII- 7. NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENTS, PERSON KILLED, AND PERSONS INJURED IN MICHIGAN, BY COUNTY: 1981 (cont.)

County	Accidents							Persons	
	Fatal	Injury	Property damage	Inter-state	Local street	State route	Total	Killed	Injured
Sanilac	10	310	789	0	608	501	1,109	11	497
Schoolcraft	3	74	263	0	131	209	340	3	100
Shiawassee	24	559	1,349	163	1,170	599	1,932	24	827
Tuscola	11	456	1,053	0	935	585	1,520	11	695
Van Buren	15	578	1,403	328	1,221	[illegible]47	1,996	18	881
Washtenaw	33	2,422	5,401	845	5,157	1,854	7,856	36	3,496
Wayne	271	25,814	50,465	6,381	54,133	16,026	76,540	286	38,926
Wexford	5	287	774	0	462	604	1,066	8	438
TOTAL	1,453	91,388	209,989	19,907	199,645	83,278	302,830	1,589	136,455

SOURCE: Michigan Department of State Police, special release.

TABLE XVII-8. NUMBER OF AIRCRAFT LANDING FACILITIES, ACTIVE PILOTS, AND ACTIVE CIVIL AIRCRAFT IN MICHIGAN: 1 JANUARY 1962-1981

Year	Aircraft landing facilities[a]	Active pilots[b]	Active civil aircraft		
			Air carrier	General aviation	
				Multiengine	All other
1962	216	12,664	25	347	2,785
1963	226	13,030	23	374	2,896
1964	226	13,535	27	421	2,983
1965	235	15,235	34	438	3,047
1966	241	16,830	39	445	3,260
1967	242	19,338	45	550	3,614
1968	251	21,459	53	611	3,983
1969	278	24,214	44	688	4,245
1970	302	25,706	38	721	4,597
1971	305	25,836	--	--	5,526[c]
1972	376	26,152	--	--	5,511[c]
1973	383	26,585	--	--	n.a.
1974	401	24,409	--	--	6,101[c]
1975	403	24,562	--	--	6,216[c]
1976	400	23,822	--	--	6,254[c]
1977	421	n.a.	--	--	7,494[c]
1978	413	25,317	--	--	6,818[c]
1979	418	25,631	--	--	7,192[c]
1980	413	26,102	--	--	7,279[c]
1981	419	25,594	--	--	n.a.

SOURCE: Federal Aviation Administration, FAA Statistical Handbook of Aviation, 1959 through 1980 (Washinton, D.C.: annually), Tables 3.5 7.12, and 8.6 (1980).

a. Civil and military airports and airfields including seaplane bases and heliports. Only those military airports are included which have joint civil use.

b. Represents active pilot certificates held.

c. Total active civil aircraft.

n.a.: not available.

TABLE XVII-9. NUMBER OF AIRCRAFT LANDING FACILITIES IN MICHIGAN AND THE UNITED STATES, BY LENGTH OF LONGEST RUNWAY: 1 JANUARY 1966 AND 1978 AND 31 DECEMBER 1980

Item	Length of longest runway, in feet					
	Under 3,000	3,000 to 3,999	4,000 to 5,999	6,000 to 9,999	10,000 and over	Total
1 January 1966						
Michigan	128	70	29	6	8	241
United States	5,920	1,686	1,281	405	250	9,542
1 January 1978						
Michigan	277	80	36	16	4	413
United States	8,940	2,503	1,773	641	260	14,117
31 December 1980						
Michigan	279	82	35	12	5	419
United States	9,727	2,592	1,877	648	263	15,107

SOURCE: Federal Aviation Administration, FAA Statistical Handbook of Aviation, 1966, 1978, and 1980 (Washington, D.C.: annually), Table 3.4 (1980).
a. Excludes Puerto Rico, Virgin Islands, N. Mariana Isles, and South Pacific.

TABLE XVII-10. SELECTED CHARACTERISTICS OF AIRCRAFT LANDING FACILITIES IN MICHIGAN AND THE UNITED STATES: 1 JANUARY 1966 AND 1978 AND 31 DECEMBER 1980

Item	1 January 1966		1 January 1978		31 December 1980	
	Michigan	United States	Michigan	United States	Michigan	United States[a]
Type of facility						
Airport	234	8,780	390	11,713	384	12,207
Heliport	0	400	15[b]	1,891[b]	25	2,319
Seaplane base	7	362	8	513	8	523
Stolports	n.a.	n.a.	n.a.	n.a.	2	58
Ownership						
Public	115	3,554	133	4,708	134	4,785
Private	126	5,988	280	9,409	285	10,322
Surface and lighting						
Paved						
Lighted	74	1,965	113	3,564	119	3,762
Not lighted	7	764	19	1,749	24	2,034
Unpaved						
Lighted	27	901	43	919	47	959
Not lighted	133	5,912	238	7,885	229	8,352

SOURCE: Federal Aviation Administration, FAA Statistical Handbook of Aviation, 1966, 1978, and 1980 (Washington, D.C.: annually), Tables 3.2 and 3.3 (1979).
a. Excludes Puerto Rico, Virgin Islands, N. Mariana Isles, and South Pacific.
b. Includes short take-off and landing ports.

TABLE XVII-7. NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENTS, PERSONS KILLED, AND PERSONS INJURED IN MICHIGAN, BY COUNTY: 1981 (cont.)

	Accidents							Persons	
County	Fatal	Injury	Property damage	Interstate	Local street	State route	Total	Killed	Injured
Manistee	9	208	679	0	531	365	896	11	309
Marquette	15	595	1,795	0	1,509	896	2,405	17	840
Mason	4	265	894	0	702	461	1,163	4	399
Mecosta	7	299	1,250	0	813	743	1,556	7	445
Menominee	6	243	978	0	707	520	1,227	6	356
Midland	14	645	1,674	0	1,726	607	2,333	16	937
Missaukee	4	75	325	0	190	214	404	4	117
Monroe	27	1,183	2,397	294	2,231	1,082	3,607	27	1,751
Montcalm	14	393	1,468	0	1,043	832	1,875	17	586
Montmorency	0	61	239	0	176	124	300	0	80
Muskegon	24	1,482	3,287	289	3,438	1,066	4,793	28	2,129
Newaygo	14	356	1,003	0	871	502	1,373	18	548
Oakland	143	10,958	21,751	1,963	23,892	6,997	32,852	148	16,494
Oceana	9	188	494	0	470	221	691	11	276
Ogemaw	4	154	636	165	437	192	794	4	234
Ontonagon	1	72	283	0	111	245	356	1	102
Osceola	7	164	696	0	463	404	867	8	277
Oscoda	2	79	287	0	198	170	368	4	115
Otsego	4	153	365	61	310	151	522	4	237
Ottawa	22	1,213	2,864	219	2,811	1,069	4,099	24	1,787
Presque Isle	4	94	319	0	217	200	417	5	146
Roscommon	8	205	628	64	386	391	841	8	296
Saginaw	31	2,486	5,574	433	5,124	2,534	8,091	33	3,857
St. Clair	27	1,212	3,090	135	2,475	1,719	4,329	27	1,899
St. Joseph	14	505	1,385	0	972	932	1,904	16	730

TABLE XVII-11. PASSENGERS, MAIL AND CARGO FOR AIR CARRIER AIRPORTS: JANUARY-DECEMBER, 1982

Airport Name (community)	Jan. thru Dec.	Passengers			Mail (pounds)			Cargo (tons)		
		Deplaned	Enplaned	Total	Inbound	Outbound	Total	Inbound	Outbound	Total
Phelps Collins (Alpena)	1982	4,046	3,963	8,009	0	0	0	4.9	2.6	7.5
	1981	7,079	7,007	14,086	0	0	0	20.9	12.1	33.0
	%Chg	-42.8	-43.4	-43.1	+0.0	+0.0	+0.0	-76.6	-78.5	-77.3
W.K. Kellogg Regional (Battle Creek)	1982	20,348	20,851	41,199	0	0	0	98.8	62.2	161.0
	1981	19,614	20,644	40,258	0	0	0	87.5	101.4	188.9
	%Chg	+3.7	+1.0	+2.3	+0.0	+0.0	+0.0	+12.9	-38.7	-14.8
Ross Field (Benton Harbor)	1982	8,498	9,898	18,396	674	0	674	36.3	53.4	89.7
	1981	15,003	17,607	32,610	199	25	224	100.4	106.4	206.8
	%Chg	-43.4	-43.8	-43.6	+238.7	-100.0	+200.9	-63.8	-49.8	-56.6
Detroit City (Detroit)	1982	25,856	25,217	51,073	0	0	0	105.1	124.5	229.6
	1981	25,992	27,507	53,499	0	0	0	175.6	183.9	359.5
	%Chg	-0.5	-8.3	-4.5	+0.0	+0.0	+0.0	-40.1	-32.3	-36.1
Detroit Metropolitan (Detroit)	1982	4,457,037	4,418,887	8,875,924	36,618,250	43,539,289	80,157,539	32,902.7	38,085.7	70,988.4
	1981	4,497,667	4,484,880	8,982,547	40,226,483	47,068,827	87,295,310	42,565.9	49,465.1	92,031.0
	%Chg	-0.9	-1.5	-1.2	-9.0	-7.5	-8.2	-22.7	-23.0	-22.9
Delta County (Escanaba)	1982	16,571	15,933	32,504	286	2,572	2,858	91.1	37.1	128.2
	1981	14,469	16,376	30,845	1,009	3,775	4,784	107.4	40.8	148.2
	%Chg	+14.5	-2.7	+5.4	-71.7	-31.9	-40.3	-15.2	-9.1	-13.5
Bishop (Flint)	1982	45,487	46,286	91,773	6,652	53,515	60,167	77.2	26.2	103.4
	1981	55,399	54,031	109,430	43,693	39,806	83,499	222.1	55.8	277.9
	%Chg	-17.9	-14.3	-16.1	-84.8	+34.4	-27.9	-65.2	-53.0	-62.8
Kent County International (Grand Rapids)	1982	366,762	373,477	740,239	5,931,176	611,583	6,542,759	1,207.1	735.9	1,943.0
	1981	356,536	345,810	702,346	4,989,963	1,083,460	6,073,423	1,174.2	794.5	1,968.7
	%Chg	+2.9	+8.0	+5.4	+18.9	-43.6	+7.7	+2.8	-7.4	-1.3

TABLE XVII-11. PASSENGERS, MAIL AND CARGO FOR AIR CARRIER AIRPORTS: JANUARY-DECEMBER, 1982 (cont.)

Airport Name (community)	Jan. thru Dec.	Passengers			Mail (pounds)			Cargo (tons)		
		Deplaned	Enplaned	Total	Inbound	Outbound	Total	Inbound	Outbound	Total
Houghton County	1982	18,389	18,727	37,116	230	990	1,220	50.1	42.2	92.3
Memorial	1981	20,715	20,895	41,610	0	2,223	2,223	66.2	38.1	104.3
(Houghton/Hancock)	%Chg	-11.2	-10.4	-10.8	+100.0	-55.5	-45.1	-24.3	+10.8	-11.5
Ford	1982	10,095	10,370	20,465	370,344	19,433	389,777	175.4	167.3	342.7
(Iron Mountain)	1981	13,020	13,263	26,283	358,931	33,552	392,483	126.6	66.3	192.9
	%Chg	-22.5	-21.8	-22.1	+3.2	-42.1	-0.7	+38.5	+152.3	+77.7
Gogebic County	1982	7,152	6,702	13,854	116	671	787	26.5	12.4	38.9
(Ironwood)	1981	7,939	8,131	16,070	169	0	169	39.8	11.9	51.7
	%Chg	-9.9	-17.6	-13.8	-31.4	+100.0	+365.7	-33.4	+4.2	-24.8
Jackson County	1982	1,893	1,994	3,887	0	0	0	3.2	1.6	4.8
Reynolds	1981	3,360	3,767	7,127	16,059	9,440	25,499	29.4	8.8	38.2
(Jackson)	%Chg	-43.7	-47.1	-45.5	-100.0	-100.0	-100.0	-89.1	-81.8	-87.4
Kalamazoo Municipal	1982	89,563	86,364	175,927	138,144	85,981	224,125	138.3	185.4	323.7
(Kalamazoo)	1981	102,010	101,197	203,237	149,212	225,434	374,646	227.2	141.1	368.3
	%Chg	-12.2	-14.7	-13.4	-7.4	-61.9	-40.2	-39.1	+31.4	-12.1
Capital City	1982	127,315	129,779	257,094	147,464	53,746	201,210	269.2	135.7	404.9
(Lansing)	1981	133,038	123,767	256,805	164,569	106,108	270,675	364.8	160.5	525.3
	%Chg	-4.3	+4.9	+0.1	-10.4	-49.3	-25.7	-26.2	-15.5	-22.9
Mackinaw Island	1982	946	990	1,936	0	0	0	1.1	.7	1.8
(Mackinaw Island)	1981				0	0	0	0	0	0
	%Chg	+100.0	+100.0	+100.0	+0.0	+0.0	+0.0	+100.0	+100.0	+100.0
Manistee County-	1982	665	901	1,566	0	0	0	.5	.3	.8
Blacker	1981	1,219	1,555	2,774	0	79	79	4.5	5.4	9.9
(Manistee)	%Chg	-45.4	-42.1	-43.5	+0.0	-100.0	-100.0	-88.9	-94.4	-91.9
Marquette County	1982	26,624	27,255	53,879	0	72	72	134.8	39.5	174.3
(Marquette)	1981	28,975	29,610	58,585	269	2,356	2,625	178.7	31.1	209.8
	%Chg	-8.1	-8.0	-8.0	-100.0	-96.9	-97.3	-24.6	+27.0	-16.9

TABLE XVII-11. PASSENGERS, MAIL AND CARGO FOR AIR CARRIER AIRPORTS: JANUARY-DECEMBER, 1982 (cont.)

Airport Name (community)	Jan. thru Dec.	Passengers			Mail (pounds)			Cargo (tons)		
		Deplaned	Enplaned	Total	Inbound	Outbound	Total	Inbound	Outbound	Total
Menominee-Marinette	1982	2,327	2,206	4,533	0	0	0	2.6	.6	3.2
(Menominee)	1981	4,079	3,959	8,038	107	2,045	2,152	28.2	11.0	39.2
	%Chg	-43.0	-44.3	-43.6	-100.0	-100.0	-100.0	-90.8	-94.5	-91.8
Muskegon County	1982	46,036	48,612	94,648	1,448	15	1,463	99.1	99.6	198.7
(Muskegon)	1981	49,495	50,762	100,257	1,670	1,487	3,157	141.7	136.6	278.3
	%Chg	-7.0	-4.2	-5.6	-13.3	-99.0	-53.7	-30.1	-27.1	-28.6
Emmet County	1982	16,648	17,307	33,955	462	4,580	5,042	63.0	42.1	105.1
(Pellston)	1981	18,304	18,624	36,928	122	315	437	81.9	66.4	148.3
	%Chg	-9.0	-7.1	-8.1	+278.7	+1,354.0	+1,053.8	-23.1	-36.6	-29.1
Tri-City International	1982	144,413	150,312	294,725	44,140	37,664	81,804	346.1	226.2	572.3
	1981	153,173	155,435	308,608	30,995	62,326	93,321	417.5	239.1	656.6
(Saginaw)	%Chg	-5.7	-3.3	-4.5	+42.4	-39.6	-12.3	-17.1	-5.4	-12.8
Chippewa Co. International	1982	5,318	5,569	10,887	2,498	2,257	4,755	37.4	19.3	56.7
	1981	6,216	6,457	12,673	3,056	1,547	4,603	35.8	15.2	51.0
(Sault Ste. Marie)	%Chg	-14.1	-13.8	-14.1	-18.3	+45.9	+3.3	+4.5	+27.0	+11.2
Cherry Capital	1982	64,021	65,368	129,389	17,383	3,756	21,139	241.8	156.8	398.6
(Traverse City)	1981	71,660	73,166	144,826	36,535	6,175	42,710	387.2	156.3	543.5
	%Chg	-10.7	-10.7	-10.7	-52.4	-39.2	-50.5	-37.6	+0.3	-26.7
TOTAL	1982	5,506,011	5,486,994	10,993,035	43,279,267	44,416,124	87,695,391	36,112.3	40,257.3	76,369.6
	1981	5,604,992	5,584,450	11,189,442	46,023,041	48,648,978	94,672,019	46,583.5	51,847.8	98,431.3
	%Chg	-1.8	-1.7	-1.8	-6.0	-8.7	-7.4	-22.5	-22.4	-22.4

SOURCE: Michigan Department of Transportation, special release.

TABLE XVII-12. ITINERANT, LOCAL AND TOTAL OPERATIONS FOR TOWER AIRPORTS, JANUARY-DECEMBER, 1982

Airport name (community)	Jan thru Dec	Itinerant operations: Air carrier	General aviation	Air taxi military	Total itinerant	Local operations: General aviation	Military	Total local	Total operations
Ann Arbor Municipal	1982	0	0	0	0	0	0	0	0
(Ann Arbor)	1981	2	31,554	207	31,763	47,332	18	47,350	79,113
	%Chg	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0
W.K. Kellogg Regional	1982	6,191	13,906	4,506	24,603	12,157	3,187	15,344	39,947
(Battle Creek)	1981	6,429	16,575	4,864	27,868	12,440	5,672	18,112	45,980
	%Chg	-3.7	-16.1	-7.4	-11.7	-2.3	-43.8	-15.3	-13.1
Ross Field	1982	0	0	0	0	0	0	0	0
(Benton Harbor)	1981	1,549	11,356	194	13,099	8,925	2	8,927	22,026
	%Chg	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0
Detroit City	1982	2,681	60,084	9,592	72,357	33,266	14	33,280	105,637
(Detroit)	1981	2,907	83,980	10,956	97,843	42,813	43	42,856	140,699
	%Chg	-7.8	-28.5	-12.4	-26.0	-22.3	-67.4	-22.3	-24.9
Detroit Metropolitan	1982	149,008	55,792	44,338	249,138	0	0	0	249,138
(Detroit)	1981	158,700	61,962	40,356	261,018	0	0	0	216,018
	%Chg	-6.1	-10.0	+9.9	-4.6	+0.0	+0.0	+0.0	-4.6
Detroit-Willow Run	1982	10,902	43,949	3,932	58,783	79,380	78	79,458	138,241
(Detroit)	1981	12,651	48,440	6,451	67,542	87,454	8	87,462	155,004
	%Chg	-13.8	-9.3	-39.0	-13.0	-9.2	+875.0	-9.2	-10.8
Bishop	1982	262	34,761	13,025	48,048	40,763	697	41,460	89,508
(Flint)	1981	3,139	46,107	9,380	58,626	64,629	528	65,157	123,783
	%Chg	-91.7	-24.6	+38.9	-18.0	-36.9	+32.0	-36.4	-27.7
Kent County International	1982	23,167	50,465	6,587	80,219	28,058	599	28,657	108,876
(Grand Rapids)	1981	18,952	63,853	3,734	86,539	40,687	278	40,965	127,504
	%Chg	+22.2	-21.0	+76.4	-7.3	-31.0	+115.5	-30.0	-14.6

TABLE XVII-12. ITINERANT, LOCAL AND TOTAL OPERATIONS FOR TOWER AIRPORTS, JANUARY-DECEMBER, 1982 (cont.)

Airport name (community)	Jan thru Dec	Itinerant operations				Local operations			Total operations
		Air carrier	General aviation	Air taxi military	Total itinerant	General aviation	Military	Total local	
Jackson County Reynolds	1982	0	26,494	2,920	29,414	16,227	357	16,584	45,998
(Jackson)	1981	1,722	33,750	1,647	37,119	24,618	394	25,012	62,131
	%Chg	-100.0	-21.5	+77.3	-20.8	-34.1	-9.4	-33.7	-26.0
Kalamazoo Municipal	1982	6,552	40,347	2,878	49,777	35,964	154	36,118	85,895
(Kalamazoo)	1981	6,662	46,970	1,095	54,727	43,254	190	43,444	98,171
	%Chg	-1.7	-14.1	+162.8	-9.0	-16.9	-18.9	-16.9	-12.5
Capital City	1981	11,433	43,102	9,192	63,727	42,076	6,605	48,681	112,408
(Lansing)	1982	11,884	52,267	8,345	72,496	45,816	7,286	53,102	125,598
	%Chg	-3.8	-17.5	+10.1	-12.1	-8.2	-9.3	-8.3	-10.5
Muskegon County	1982	3,323	24,370	9,657	37,350	20,975	4,034	25,009	62,359
(Muskegon)	1981	2,758	28,863	7,661	39,282	26,732	2,553	29,285	68,567
	%Chg	+20.5	-15.6	+26.1	-4.9	-21.5	+58.0	-14.6	-9.1
Oakland-Pontiac	1982	345	103,791	6,245	110,381	128,009	192	128,201	238,582
(Pontiac)	1981	471	121,671	4,958	127,100	129,353	201	129,554	256,654
	%Chg	-26.8	-14.7	+26.0	-13.2	-1.0	-4.5	-1.0	-7.0
Tri-City International	1982	8,441	21,329	7,377	37,147	9,500	416	9,916	47,063
(Saginaw)	1981	7,622	28,713	5,086	41,421	17,699	230	17,929	59,350
	%Chg	+10.7	-25.7	+45.0	-10.3	-46.3	+80.9	-44.7	-20.7
Cherry Capital	1982	4,526	27,473	8,862	40,861	34,098	7,706	41,804	82,665
(Traverse City)	1981	4,192	32,073	8,379	44,644	41,763	7,720	49,483	94,127
	%Chg	+8.0	-14.3	+5.8	-8.5	-18.4	-0.2	-15.5	-12.2
Total	1982	226,831	545,863	129,111	901,805	480,473	24,039	504,512	1,406,317
	1981	239,640	708,134	113,313	1,061,087	633,515	25,123	658,638	1,719,725
	%Chg	-5.3	-22.9	+13.9	-15.0	-24.2	-4.3	-23.4	-18.2

SOURCE: Michigan Department of Transportation, special release.

TABLE XVII-13. MICHIGAN AIR SERVICE INDICATORS BY CITY AS OF 1 AUGUST 1982

City/Airport	Daily flights	Daily seats	Non-Stop origins	Carriers
Alpena-APN	3	57	2	1 MQ
Battle Creek-BTL	11	364	3	1 ZW
Benton Harbor-BEH	4	192	3	1 RC
Detroit City-DET[a]	7	236	2	2 FW,GS
Detroit Metro-DTW	292	30,909	54[b]	22 RC,NW,DL,AA,UA AL,AL-1,EA,OH, ZW,MQ,TW,ML,FW, FL,OZ,UR,PA,NY, IU,2L,GS,(BA, SN)
Escanaba-ESC	12	626	4	2 RC,MQ
Flint-FNT	21	507	5	3 DN,IU,AL-1
Grand Rapids-GRR	43	4,282	9[c]	7 RC,UA,DN,MQ, AL,NW,2L
Hancock-CMX	3	285	2	1 RC
Iron Mountain-IMT	4	474	2	1 RC
Ironwood-IWD	4	192	3	1 RC
Jackson-JXN	4	76	2	1 MQ
Kalamazoo-AXO	15	893	4[c]	2 RC, 2L
Lansing-LAN	35	2,054	12	5 RC,UA,MQ,DN,PI
Mackinac Island-MCD[d]	6	48	1	1 QQ
Mainistee-MBL	2	16	1	1 JR[e]
Marquette-MQT	7	361	2	2 RC,MQ
Menominee-MNM	5	95	4	1 MQ
Muskegon-MKG	15	439	5	2 RC,IU
Pellston-PLN	12	525	4	3 RC,MQ,QQ
Saginaw-MBS	23	1,716	8	4 RC,UA,DN,MQ
Sault Ste. Marie-CIU	2	214	1	1 RC
Traverse City-TVC	22	1,226	9	2 RC,MQ
TOTAL	552	45,787	142	26 RC,MQ,NW,UA,DL, AL-1,OH,DN,2L, FW,QQ,EA,TW,ML, NY,GS,FL,OZ,UR, PI,JR,PA,(BA,SN) IU,ZW+,AA,AL

SOURCE: The Michigan State Transportation Commission, special release.

a. Sundroph's service DET-YNG is not included above. It will be when their conversion from air taxi to air carrier is complete.
b. DTW has non-stop service to 54 cities but 58 airports. They are Chicago (ORD,MDW), Houston (IAH,HOU) and NYC (JFK,EWR,LGA).
c. Both GRR and AZO have service to ORD and MDW in Chicago.
d. Mackinac Island service is seasonal to and from Pellston.
e. American Central (JR) was wrongly shown as DY last month.
f. US Air and Fisher Bros. are differentiated by AL and AL-1 respectively. British (BA) and Sabena (SN) are foreign flag carriers at DTW. Their one-stop service to Europe is not included above.

TABLE XVII-14. MICHIGAN AIR SERVICE INDICATORS BY CARRIER AS OF 1 AUGUST 1982

Carrier	Daily flights	Daily seats	MI cities serviced	MI-city-pairs	Interstate city-pairs
RC-Republic	167	17,083	15	35	33
MQ-Simmons	71	1,349	11	28	5
NW-NW Orient	33	5,750	2	2	9
UA-United	29	4,705	4	4	12
DL-Delta	28	3,856	1	0	13
ZW-Air Wisconsin	26	804	2	2	5
IU-Midstate	25	475	3	4	3
AA-American	23	3,468	1	0	5
Al-1-Fisher Bros.	20	440	2	2	2
AL-US Air	18	1,708	2	0	7
OH-Comair	17	400	1	0	5
2L-Air Lincoln	16	128	3	4	3
DN-Freedom	15	720	4	7	3
FW-Wright	13	572	2	0	2
QQ-Michigan Airways	11	88	2	2	0
EA-Eastern	8	954	1	0	5
TW-TransWorld	5	776	1	0	3
ML-Midway	5	550	1	0	1
GS-Beaver Air	5	40	2	0	2
FL-Frontier	4	460	1	0	2
OZ-Ozark	3	330	1	0	1
UR-Empire	3	255	1	0	1
PI-Piedmont	2	240	1	0	1
NY-New York	2	220	1	0	1
JR-American Central	2	16	1	0	1
PA-Pan American	1	400	1	0	1
TOTAL	552	45,787	67	90	126

SOURCE: Michigan Department of Transportation, special release.

NOTE: Daily Flights and Seats are arrivals aggregated across Michigan's commercial service airports. Michigan Cities Serviced is self-explanatory but the Total represents 67 'carrier cities' at our 23 service airports. MI City-Pairs are one-way intrastate flights so are essentially double and actual number of round-trip city-pairs. Interstate City-Pairs are one-way arrivals from out-of-state to Michigan cities. To compare these last two items, either double the Interstate City Pairs or halve the MI City-Pairs.

TABLE XVII-15. MICHIGAN'S TOTAL AIRLINE PASSENGERS BOARDING AT EACH COMMERCIAL SERVICE AIRPORT IN THE STATE: 1971-1981

Principal city served	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	Percentage change 1971-1981
Alpena	.15	.16	.16	.18	.18	.18	.19	.20	.19	.19	.13	- .02
Battle Creek	.51	.23	.22	.38	.39	.42	.51	.46	.41	.38	.36	- .15
Benton Harbor	.54	.53	.52	.57	.56	.57	.61	.54	.53	.45	.29	- .25
Detroit (City)	.88	.67	.59	.62	.54	.54	.56	.55	.54	.53	.49	- .39
Detroit (Metro)	78.87	78.27	78.19	76.54	76.07	75.44	74.92	74.88	76.47	77.63	80.27	+ 1.40
Escanaba	.32	.34	.27	.30	.30	.32	.32	.27	.31	.32	.28	- .04
Flint	1.73	1.87	1.95	2.02	1.99	2.18	2.28	2.19	1.76	1.37	.98	- .75
Grand Rapids	4.81	5.33	5.40	5.59	5.92	5.85	6.35	6.57	6.60	6.80	6.28	+ 1.47
Houghton	.38	.35	.32	.38	.40	.41	.40	.40	.38	.39	.37	- .01
Iron Mountain	.30	.26	.27	.32	.34	.34	.34	.35	.26	.31	.23	- .07
Ironwood	.18	.18	.17	.17	.17	.17	.16	.16	.17	.19	.14	- .04
Jackson	.13	.15	.15	.17	.18	.17	.18	.16	.12	.11	.06	- .07
Kalamazoo	1.58	1.87	1.87	2.01	1.92	2.09	1.86	2.14	2.03	1.92	1.82	+ .24
Lansing	2.51	2.84	2.96	3.25	3.38	3.42	3.54	3.49	3.18	2.95	2.30	- .21
Manistee	.07	.08	.07	.07	.06	.05	.05	.04	.04	.04	.02	- .05
Marquette	.58	.61	.54	.60	.66	.67	.66	.67	.61	.54	.52	- .06
Menominee	.17	.16	.16	.19	.20	.18	.18	.18	.15	.16	.07	- .10
Muskegon	1.63	1.36	1.31	1.46	1.50	1.52	1.45	1.35	1.20	.87	.90	- .73
Pellston	.38	.40	.41	.44	.46	.49	.48	.47	.43	.40	.33	- .05
Saginaw	3.18	3.23	3.34	3.43	3.40	3.57	3.57	3.53	3.20	3.03	2.76	- .42
Sault Ste. Marie	.23	.25	.24	.27	.27	.29	.24	.20	.19	.17	.11	- .12
Traverse City	.84	.86	.90	1.04	1.12	1.11	1.17	1.19	1.23	1.24	1.29	+ .45

SOURCE: Michigan Department of Transportation, Planning Division, special release.

TABLE XVII-16. ANNUAL MASS TRANSIT RIDERSHIP: 1980-1981

Service	1980	1981	Percentage change
Local public transportation	114,821,508	107,460,240	- 6.4
Intercity bus	1,601,770	1,670,450	+ 4.3
Intercity rail passenger	589,398	559,480	- 5.1
Detroit-Jackson	86,607	55,529	-35.9
Detroit-Chicago (incl. Detroit-Toledo)	391,670	390,974	- 0.2
Port Huron-Chicago	111,121	112,977	- 1.7
SEMTA commuter rail	512,798	448,973	-14.2

SOURCE: Michigan Department of Transportation, special release.

TABLE XVII-17. ANNUAL RIDERSHIP AND VEHICLE HOURS FOR EACH LOCAL PUBLIC TRANSPORTATION SYSTEM: 1980 AND 1981

Planning Area	Annual Ridership		Annual vehicle hours	
	1980	1981	1980	1981
Michigan	114,821,508	107,460,240	4,659,094	4,752,964
Metropolitan[a]	88,319,742	78,909,623	3,038,927	2,930,308
SEMTA	13,559,941	12,131,588	663,180	746,237
DDOT	73,787,000	66,021,000	2,216,757	1,052,319
Bedford Twp.	13,874	13,697	4,562	3,885
Birmingham	52,297	49,608	8,568	8,382
Ferndale	55,424	55,065	10,085	9,827
Harper Woods	36,496	40,757	4,059	4,429
Monroe	121,643	198,595	26,138	26,843
Mount Clemens	132,246	119,765	11,169	11,774
Nankin	--	71,373	--	22,478
Redford Twp.	85,646	91,504	15,131	16,119
Trenton	55,131	65,512	10,666	12,788
Waterford Twp.	58,803	60,189	14,157	15,227
Small Metropolitan	23,247,906	24,914,465	1,101,772	1,220,941
Ann Arbor	1,880,297	2,566,403	174,300	161,429
Battle Creek	1,314,033	1,232,059	42,260	45,871
Bay County	831,352	991,200	66,110	124,800
Benton Harbor	133,068	143,495	23,480	26,265
Flint	4,254,426	3,992,906	149,542	144,941
Grand Rapids	4,705,985	5,087,678	199,021	205,184
Jackson	725,818	828,528	45,681	64,132
Kalamazoo	3,411,095	3,383,704	128,412	127,642
Lansing	4,470,040	4,469,388	148,244	164,714
Muskegon	457,319	569,234	31,340	36,773
Port Huron	357,241	710,463	54,005	57,253
Saginaw	707,232	939,407	39,377	61,937
Small Community	2,098,127	2,049,925	296,297	284,127
Adrian	124,835	122,970	13,544	13,516
Alma	82,109	70,815	9,565	7,101
Alpena	86,958	90,174	12,705	12,487
Belding	42,081	42,633	4,759	4,391
Big Rapids	153,467	155,336	18,019	18,574
Cadillac	112,713	124,696	14,272	17,277
Davison	79,229	76,013	12,941	12,612
Dowagiac	25,989	29,468	4,817	5,026
Eaton Rapids	28,516	26,335	3,760	3,764
Gladwin	47,305	36,370	5,309	3,947
Grand Haven	163,764	156,120	21,909	22,482

TABLE XVII-17. ANNUAL RIDERSHIP AND VEHICLE HOURS FOR EACH LOCAL PUBLIC TRANSPORTATION SYSTEM: 1980 AND 1981 (cont.)

Planning Area	Annual Ridership		Annual vehicle hours	
	1980	1981	1980	1981
Hillsdale	86,652	87,471	10,150	10,696
Holland	100,386	116,311	15,341	17,563
Ionia	24,663	46,632	3,781	6,192
Ishpeming	28,661	36,286	5,114	4,858
Ludington	109,884	102,976	12,096	10,017
Marquette	152,687	148,172	11,868	11,652
Marshall	49,656	54,674	5,799	6,232
Midland	146,096	142,469	25,110	24,623
Niles	114,337	134,241	21,427	25,768
Reed City	11,997	23,209	3,009	4,526
Saugatuck	19,140	33,807	3,630	5,085
Sault Ste. Marie	79,748	93,152	12,881	14,022
Traverse City	94,194	99,595	20,921	21,716
Countywide	1,155,733	1,586,227	22,098	317,588
Antrim	83,878	90,496	19,436	21,958
Arenac	--	26,582	--	6,479
Baraga	61,809	55,237	10,192	10,075
Charlevoix	27,233	78,944	7,035	16,798
Crawford	74,849	75,701	22,976	12,376
Eaton	14,757	91,139	5,622	22,394
Chippewa/Luce	32,581	58,893	9,532	11,298
Gladwin	--	40,674	--	5,324
Gogebic	11,662	11,414	1,811	1,956
Houghton	127,247	154,857	19,188	21,591
Ingham	--	603	--	900
Iosco	50,123	67,116	12,497	11,106
Isabella	267,576	270,007	37,987	41,466
Lenawee	90,933	84,657	21,161	17,109
Manistee	151,177	157,616	24,748	25,854
Mecosta	62,735	66,674	15,251	15,815
Ogemaw	449	14,182	158	4,886
Ontonagon	--	2,228	--	2,487
Oscoda	850	13,385	440	5,880
Otsego	14,208	68,928	2,808	16,262
Roscommon	3,662	43,367	1,980	11,649
Schoolcraft	10,926	47,962	3,202	11,918
Van Buren	54,070	46,987	10,104	12,322
Yates Twp.	15,008	18,578	5,970	6,155

SOURCE: Michigan Department of Transportation, Mass Transportation Planning Section, special release.

a. The SMETA figures do not include commuter rail as only 1981 figures are reported in this document.

TABLE XVII-18. FREIGHT CARRIED ON THE MICHIGAN GREAT LAKES SYSTEM: 1973-1980

(Thousands of ton-miles)

Waterway and year	Domestic				Foreign		Area totals
	Lakewise	Coastwise	Internal	Local and intraport	Canada	Overseas	
Lake Superior							
1973	26,801,073	0	0	51	3,340,603	1,837,323	31,979,050
1974	25,258,380	0	0	74	2,280,306	828,733	28,367,493
1975	21,884,646	0	0	48	2,082,536	1,129,562	25,096,792
1976	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1977	15,454,146	0	0	181	1,616,238	1,529,034	18,599,599
1978	24,617,303	0	0	71	2,646,711	2,686,460	29,950,545
1979	25,692,584	0	0	572	2,845,119	2,184,803	30,723,078
1980	20,359,118	0	0	31	3,179,098	1,687,680	25,225,927
St. Mary's River							
1973	4,866,476	0	0	2	628,985	301,654	5,797,117
1974	4,581,604	0	0	3	426,591	136,032	5,144,230
1975	4,037,468	0	0	2	408,454	185,397	4,631,321
1976	4,138,670	0	0	3	329,790	163,517	4,631,980
1977	2,817,806	0	0	1	312,514	250,804	3,381,125
1978	4,511,761	0	0	4	450,469	440,943	5,403,177
1979	4,612,771	0	0	1	464,618	358,598	5,435,988
1980	3,618,103	0	0	1	532,626	277,227	4,427,957
Lake Huron							
1973	20,161,720	5,206	1,004	5,120	4,155,623	2,429.105	26,757,778
1974	18,811,921	0	1,157	6,121	3,134,382	1,264,626	23,236,207
1975	16,125,686	0	1,333	4,100	3,315,051	1,372,476	20,818,646
1976	17,004,630	0	3,963	4,935	3,962,777	1,548,453	22,424,758
1977	13,135,740	0	8	4,970	3,482,484	2,131,923	18,755,125
1978	17,992,729	0	610	4,658	3,840,447	2,894,635	24,733,079
1979	18,552,490	1,346	303	4,789	4,611,055	2,577,599	25,747,582
1980	14,678,609	49	157	2,993	4,834,673	1,575,443	20,091,924

TABLE XVII-18. FREIGHT CARRIED ON THE MICHIGAN GREAT LAKES SYSTEM: 1973-1980 (cont.)

(Thousands of ton-miles)

Waterway and year	Domestic				Foreign		Area totals
	Lakewise	Coastwise	Internal	Local and intraport	Canada	verseas	
St. Clair[a]							
1973	4,908,975	1,790	353	0	1,017,375	594,722	6,523,215
1974	4,485,771	0	407	288	723,164	308,421	5,518,051
1975	3,817,879	0	308	0	771,777	336,978	4,926,942
1976	3,953,856	0	665	0	863,660	376,761	5,194,942
1977	2,986,684	0	0	0	822,731	519,520	4,328,935
1978	4,101,310	0	141	0	913,248	716,796	5,731,495
1979	4,257,591	312	68	0	1,128,238	636,397	6,022,606
1980	3,345,722	804	0	0	944,938	393,683	4,685,147
Detroit River							
1973	2,553,050	2,455	408	943	635,793	378,045	3,570,694
1974	2,284,291	1,194	273	1,735	454,449	210,510	2,952,452
1975	1,950,195	1,112	268	988	498,614	221,029	2,672,206
1976	2,024,737	1,600	402	794	519,801	253,521	2,800,855
1977	1,529,176	1,159	34	779	520,875	338,756	2,390,779
1978	2,062,537	1,458	114	913	542,028	434,753	3,041,803
1979	2,158,570	1,383	37	390	666,182	387,630	3,214,192
1980	1,703,918	1,651	0	437	566,896	234,782	2,507,684
Lake Michigan[b]							
1973	15,887,795	2,723	515,078	95,598	2,797,246	1,751,422	21,049,862
1974	16,105,023	2,419	580,506	90,386	2,248,124	1,004,624	20,031,082
1975	14,366,790	913	555,173	72,047	2,193,957	909,835	18,098,715
1976	14,490,026	1,200	460,620	65,835	3,075,673	1,265,525	19,358,885
1977	11,270,889	1,057	421,172	57,984	2,775,846	1,628,324	16,155,272
1978	16,005,560	897	380,129	76,822	2,443,191	1,740,677	20,647,276
1979	15,266,657	2,491	395,712	72,655	3,121,358	1,661,987	20,520,860
1980	12,178,890	851	455,227	68,523	2,028,203	762,070	15,493,761

SOURCE: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Part 3, Waterways and Harbors--Great Lakes, 1973 through 1980 (Vicksburg, Mississippi: annually).

a. Includes St. Clair River and channels in Lake St. Clair.

b. Includes the port of Chicago.

TABLE XVII-19. FREIGHT TRAFFIC ON PRINCIPAL MICHIGAN WATERWAYS: 1974-1980

(In thousands of tons)

Port or waterway	1974	1975	1976	1977	1978	1979	1980
Alabaster	409.2	n.a.	561.0	621.7	n.a.	n.a.	389.9
Alpena Harbor	3,082.3	2,855.6	2,835.5	3,004.9	3,203.7	2,942.1	2,737.0
Calcite	14,767.4	1,645.9	11,313.5	11,985.2	11,699.2	n.a.	7,428.0
Charlevoix	157.4	133.1	124.2	42.5	163.2	n.a.	144.5
Cheboygan	117.2	78.9	158.0	158.9	134.8	n.a.	110.5
Detroit River	110,515.9	100,419.3	104,551.8	90,576.9	113,031.8	118,392.0	92,072.8
Port of Detroit	27,541.2	26,487.9	26,407.9	25,092.8	25,881.5	24,996.0	19,268.4
Detroit Harbor	11,230.0	11,103.2	10,371.6	7,856.8	9,005.9	8,316.3	5,894.6
Rouge River	10,900.7	12,738.1	11,061.9	12,055.8	11,499.3	12,492.1	10,277.3
Ecorse	647.5	715.4	635.6	902.0	726.2	316.9	369.8
Wyandotte	1,632.7	1,497.9	1,584.3	1,442.2	1,290.6	438.9	293.4
Trenton	3,496.5	3,120.6	3,059.8	3,131.0	3,704.7	3,615.5	2,652.8
Escanaba	9,685.7	10,876.3	11,934.4	9,506.1	13,207.5	n.a.	11,240.6
Frankfort Harbor	801.6	644.7	433.1	365.6	542.4	1,397.3	944.5
Gladstone	230.9	194.1	261.9	232.7	298.8	n.a.	144.4
Grand Haven Harbor and Grand River	2,215.9	1,138.1	830.9	499.5	701.7	1,010.0	585.2
Grays Reef Passage	5,741.1	5,467.9	5,899.4	5,378.7	6,562.5	7,690.7	6,020.6
Holland	368.9	338.1	338.7	377.1	419.9	451.5	263.2
Harbor Beach	237.4	283.0	296.5	268.3	253.7	n.a.	180.6
Keweenaw Waterway	290.3	258.2	236.4	264.2	252.1	n.a.	186.7
Ludington Harbor	2,178.8	2,123.5	2,338.8	2,449.0	2,397.9	2,764.9	2,129.0
Manistee Harbor	506.8	220.0	182.5	181.4	183.8	n.a.	185.7
Marquette Harbor	1,036.1	1,233.3	572.3	394.3	86.9	n.a.	77.3
Menominee Harbor and River[a]	152.4	118.1	105.1	124.2	137.4	n.a.	n.a.
Monroe Harbor	215.6	1,184.7	972.9	1,321.3	2,374.2	2,662.8	2,768.5
Muskegon Harbor	2,508.1	1,945.2	2,270.8	1,912.4	1,952.5	1,906.7	1,235.3
Petoskey Penn Dixie Harbor	501.5	469.0	430.8	485.5	428.9	n.a.	371.9

TABLE XVII-19. FREIGHT TRAFFIC ON PRINCIPAL MICHIGAN WATERWAYS: 1974-1980 (cont.)

(In thousands of tons)

Port or waterway	1974	1975	1976	1977	1978	1979	1980
Port Dolomite	4,437.0	3,608.5	3,457.4	3,798.6	3,633.7	n.a.	2,978.9
Port Gypsum	273.0	382.1	473.9	500.1	631.3	n.a.	335.9
Port Inland	4,324.1	3,248.5	3,361.5	3,469.7	3,585.2	n.a.	3,005.7
Presque Isle Harbor	3,118.4	3,847.0	6,840.6	5,215.3	7,956.9	8,121.7	7,881.3
Saginaw River	4,180.1	2,705.3	3,072.5	3,656.2	3,173.6	4,046.1	3,081.3
St. Clair River	101,445.4	91,711.3	96,360.2	82,750.5	106,868.5	112,691.1	89,010.4
Port Huron	308.1	213.6	244.6	325.9	647.1	894.5	695.6
Marysville	577.7	559.7	516.7	575.9	529.9	425.5	614.6
St. Clair	3,075.1	2,686.5	3,355.1	4,585.1	3,319.8	3,286.4	3,726.3
Marine City	232.5	145.7	187.5	250.9	324.7	239.3	281.7
Algonac	11.3	18.3	0	7.2	23.8	n.a.	n.a.
Channels in Lake St. Clair	99,318.3	88,954.4	92,441.3	77,647.2	102,197.9	107,708.8	83,914.3
St. Joseph Harbor	433.1	245.0	295.1	308.4	320.6	443.9	445.9
St. Mary's River	86,801.4	78,153.5	78,930.7	58,322.0	90,761.6	91,081.0	74,310.0
St. Mary's Falls	83,302.7	75,225.5	76,739.5	56,302.0	88,634.9	90,499.5	75,048.9
Sault Ste. Marie	87.5	86.2	95.6	69.9	62.3	n.a.	52.2
Lime Island	37.8	56.4	84.4	59.8	95.3	n.a.	16.5
Drummond Island	2,909.6	2,341.1	2,511.4	2,131.6	2,578.4	2,047.0	1,489.3
Detour and vicinity	204.5	78.9	14.4	.1	.1	n.a.	.1
Stoneport	9,859.2	8,533.2	9,766.0	7,991.6	9,217.9	n.a.	7,354.3
Traverse City Harbor	405.2	364.8	398.3	430.7	426.2	318.2	323.3

SOURCE: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Part 3, Waterways and Harbors--Great Lakes, 1974 through 1980 (Vicksburg, MS: annually).

NOTE: Only waterways which had more than 100,000 tons of traffic in 1974 are listed.

a. Michigan and Wisconsin.

n.a.: not available.

TABLE XVII-20. NUMBER OF REVENUE VEHICLES REPORTED BY THE DETROIT & CANADA TUNNEL CORPORATION, DETROIT INTERNATIONAL BRIDGE COMPANY, MACKINAC BRIDGE AUTHORITY, AND INTERNATIONAL BRIDGE AUTHORITY: 1969-1981

Year	Detroit & Canada Tunnel Corporation	Detroit International Bridge Company	Mackinac Bridge Authority	International Bridge Authority
1969	5,921,565	4,204,805	1,836,383	743,076
1970	5,926,789	4,216,764	1,947,862	759,999
1971	5,863,013	4,408,012	2,090,492	780,222
1972	5,681,152	4,616,461	2,174,664	824,878
1973	5,523,499	4,964,444	2,254,439	868,479
1974	5,405,642	4,973,016	2,138,298	865,814
1975	5,202,331	4,980,587	2,285,784	936,890
1976	5,056,690	5,022,711	2,391,211	957,622
1977	4,968,398	5,238,646	2,460,293	1,059,595
1978	5,392,341	4,956,585	2,539,620	1,118,930
1979	5,250,899	5,348,952	2,293,446	1,076,327
1980	5,875,945	5,971,177	2,260,102	1,216,331
1981	6,323,911	5,784,935	2,320,542	1,316,435

SOURCE: Detroit & Canada Tunnel Corporation, special release; Detroit International Bridge Company, special release; Mackinac Bridge Authority, special release; and International Bridge Auhority.

NOTE: The International Bridge Authority links Michigan and Canada at Sault Ste. Marie. Traffic data for the Blue Water Bridge, located at Port Huron and Sarnia, are not available.

TABLE XVII-21. PERCENTAGE OF WORKERS USING A CAR, TRUCK, OR VAN: OR IN CAR POOLS AS A MEANS OF TRANSPORTATION TO WORK: CENSUS 1980

	Percentage			Percentage	
County	Using car, truck or van	In car pools	County	Using car, truck or van	In car pools
Alcona	84.2	21.8	Lake	84.7	22.5
Alger	78.4	21.0	Lapeer	91.6	24.6
Allegan	90.1	21.0	Leelanau	85.2	19.4
Alpena	88.5	16.0	Lenawee	90.2	20.0
Antrim	84.1	19.9	Livingston	94.5	21.8
Arenac	85.7	24.2	Luce	80.6	18.3
Baraga	79.8	21.3	Mackinac	76.0	21.6
Barry	91.4	23.8	Macomb	95.4	17.0
Bay	93.5	18.6	Manistee	84.9	18.0
Benzie	87.0	20.9	Marquette	81.3	24.1
Berrien	90.6	18.0	Mason	86.8	17.6
Branch	89.3	19.7	Mecosta	78.5	22.6
Calhoun	90.8	19.0	Menominee	85.6	17.2
Cass	91.1	19.7	Midland	93.4	19.6
Charlevoix	85.2	19.8	Missaukee	80.9	19.0
Cheboygan	87.3	18.2	Monroe	94.2	17.5
Chippewa	77.1	18.0	Montclam	88.6	26.1
Clare	87.1	22.5	Montmorency	86.7	20.2
Clinton	90.9	24.1	Muskegon	93.1	17.8
Crawford	91.6	16.2	Newaygo	87.9	25.7
Delta	87.2	18.4	Oakland	94.9	15.0
Dickinson	86.7	16.4	Oceana	83.6	23.9
Eaton	91.7	21.1	Ogemaw	86.1	14.5
Emmet	83.0	18.9	Ontonagon	80.3	24.3
Genesee	94.8	16.0	Osceola	85.0	23.8
Gladwin	88.4	26.1	Oscoda	85.4	18.2
Gogebic	77.0	22.1	Otsego	89.9	14.8
Grand Traverse	89.4	17.8	Ottawa	91.5	18.2
Gratiot	84.9	20.7	Presque Isle	85.2	17.5
Hillsdale	87.3	18.0	Roscommon	85.0	15.7
Houghton	70.8	22.2	Saginaw	93.9	16.7
Huron	78.7	18.1	St. Clair	92.2	20.5
Ingham	82.5	17.1	St. Joseph	89.9	19.6
Ionia	88.7	27.4	Sanilac	80.6	20.3
Iosco	85.5	17.1	Schoolcraft	84.8	23.7
Iron	75.9	17.7	Shiawassee	91.4	21.3
Isabella	75.9	18.3	Tuscola	89.8	22.9
Jackson	92.1	18.1	Van Buren	88.8	21.5
Kalamazoo	88.3	16.6	Washtenaw	81.2	17.0
Kalkaska	89.2	17.8	Wayne	89.0	17.2
Kent	91.1	17.9	Wexford	88.0	19.7
Keweenau	73.2	22.3	MICHIGAN TOTAL	90.3	17.8

SOURCE: Bureau of the Census, special release.

XVIII. COMMUNICATIONS

The Federal Communications Commission is the leading source of information in the field. Its publication Statistics of Communications Common Carriers gives much detailed information about telephones, radio, and television in the nation and in various states.

The Broadcasting Yearbook of Broadcasting Publications, Inc., lists a considerable amount of information relating to radio and television stations. This volume includes information by states: the facility involved, advertising rates charged, trading area covered, and so forth. Further information concerning Michigan newspapers is available in the Michigan Newspaper Directory and Rate Book of the Michigan Press Association.

Data on plant and customers of each telephone company are available from the records of the Michigan Public Service Commission in the Michigan Department of Commerce. The PSC is responsible for regulating telephone companies and other public utilities.

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TABLE XVIII-1. NUMBER AND CIRCULATION OF DAILY AND SUNDAY NEWSPAPERS IN MICHIGAN: 1964-1974 AND 1976-1980

(Circulation figures in thousands)

Year	Daily newspapers		Sunday newspapers	
	Number	Net paid circulation[a]	Number	Net paid circulation[a]
1964	53	2,384	11	2,081
1965	53	2,353	11	2,040
1966	54	2,410	11	2,093
1967	54	2,492	11	2,167
1968	54	2,435	12	2,085
1969	55	2,415	12	2,080
1970	56	2,512	13	2,189
1971	55	2,447	13	2,187
1972	55	2,510	14	2,245
1973	55	2,569	14	2,276
1974	55	2,527	14	2,269
1976	53	2,453	14	2,225
1977	52	2,457	14	2,237
1978	52	2,458	17	2,366
1979	52	2,458	17	2,363
1980	52	2,448	15	2,36[illegible]

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1965 through 1980 (Washington, D.C.: annually), Table 1006 (1980).

a. As of 1 October. Figures for 1975 not available.

n.a. Not available.

TABLE XVIII-2. NUMBER OF COMMERCIAL BROADCAST STATIONS IN MICHIGAN: 1 JANUARY, 1964-1974 AND 1976-1980

Year	AM	FM	TV	Total
964	114	47	16	177
1965	115	51	16	182
1966	116	58	17	191
1967	121	61	17	199
1968	122	67	18	207
1969	124	72	19	215
1970	124	76	20	220
1971	125	78	20	223
1972	125	84	22	231
1973	126	87	21	234
1974	124	92	21	237
1976	128	107	24	259
1977	127	116	24	267
1978	127	109	24	260
1979	128	117	24	269
1980	131	122	24	277

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1965 through 1980 Washington, D.C.: annually), Table 996 (1980).

TABLE XVIII-3. MICHIGAN DAILY NEWSPAPERS: 1981

County	City	Name[a]	Circulation[b] Daily	Circulation[b] Weekly Supplements
Alpena	Alpena	The Alpena News	12,759	--
Bay	Bay City	The Bay City Times	39,758	44,369
Berrien	Benton Harbor	Benton Harbor Herald Palladium	36,075	--
	Niles	The Daily Star	7,924	20,447
Branch	Coldwater	Daily Reporter	8,160	--
Calhoun	Albion	Albion Evening Recorder	3,674	8,850
	Battle Creek	Enquirer & News	31,841	31,500
	Marshall	Marshall Evening Chronicle	2,777	7,800
Cass	Dowagiac	Dowagiac Daily News	3,600	59,200
Cheboygan	Cheboygan	Cheboygan Daily Tribune	4,399	--
Chippewa	Sault Ste. Marie	Evening News	8,755	--
Delta	Escanaba	The Daily Press	9,792	9,800
Dickinson	Iron Mountain	The Daily News	10,002	--
Emmet	Petoskey	Petoskey News-Review	10,586	19,958
Genesee	Flint	The Flint Journal	107,778	110,135
Gogebic	Ironwood	Ironwood Daily Globe	10,020	--
Grand Traverse	Traverse City	Traverse City Record Eagle	23,116	--
Hillsdale	Hillsdale	Daily News	8,253	7,460
Houghton	Houghton	Daily Mining Gazette	12,283	11,717
Huron	Bad Axe	Huron Daily Tribune	9,210	7,000
Ingham	Lansing	Lansing State Journal	74,677	82,012
Ionia	Ionia	Ionia Sentinel-Standard	4,289	21,000
Isabella	Mt. Pleasant	Morning Sun	8,100	41,000
Jackson	Jackson	Jackson Citizen Patriot	38,051	41,793
Kalamazoo	Kalamazoo	Kalamazoo Gazette	60,722	39,279
Kent	Grand Rapids	The Grand Rapids Press	127,550	152,289
Lenawee	Adrian	The Daily Telegram	16,853	15,500
Macomb	Mt. Clemens	Macomb Daily	52,073	52,646
Manistee	Manistee	Manistee News-Advocate	5,606	27,000
Marquette	Marquette	The Mining Journal	17,579	--
Mason	Ludington	Ludington Daily News	8,507	--
Mecosta	Big Rapids	The Pioneer	5,153	28,193
Menominee	Menominee	The Herald-Leader	5,016	20,200

TABLE XVIII-3. MICHIGAN DAILY NEWSPAPERS: 1981 (cont.)

County	City	Name[a]	Circulation[b] Daily	Circulation[b] Weekly Supplements
Midland	Midland	Midland Daily News	17,831	--
Monroe	Monroe	The Monroe Evening News	26,937	--
Montcalm	Greenville	The Daily News	7,820	6,250
Muskegon	Muskegon	Muskegon Chronicle	44,221	47,947
Oakland	Pontiac	The Oakland Press	74,575	40,000
	Royal Oak	The Daily Tribune	46,809	80,283
Ottawa	Grand Haven	Grand Haven Tribune	9,755	6,175
	Holland	Holland Sentinel	17,066	11,742
Saginaw	Saginaw	The Saginaw News	54,608	56,922
St. Clair	Port Huron	The Times Herald	30,097	40,799
St. Joseph	Sturgis	Sturgis Journal	9,791	11,100
	Three Rivers	Three Rivers Commercial	5,291	--
Shiawassee	Owosso	The Argus Press	14,602	12,000
Van Buren	South Haven	South Haven Daily Tribune	4,291	12,400
Washtenaw	Ann Arbor	Ann Arbor News	42,632	48,455
	Ypsilanti	The Ypsilanti Press	16,730	16,370
Wayne	Detroit	Detroit Free Press	613,311	737,119
	Detroit	Detroit Legal News	2,363	--
	Detroit	Detroit News	623,763	824,525
Wexford	Cadillac	News	8,661	--

SOURCE: Michigan Press Association, Michigan Newspaper Directory 1982 (Lansing: 1982), pp. 53-61.

a. This list includes all members of the Michigan Press Association; no information is available for other papers which are not members.

b. Circulation figures are taken from the statement of ownership required by the U.S. Postal Service, Audit Bureau of Circulation, Certified Audit Circulation, and publishers figures.

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1981

County	City	Name[a]	Circulation[b]
Alcona	Harrisville	Alcona County Review	3,116
	Lincoln	Alcona County Herald	2,400
Alger	Munising	The Munising News	3,060
Allegan	Allegan	Allegan County News Gazette	6,722
	Fennville	Fenville Herald	1,350
	Plainwell	The Union Enterprise	4,300
	Saugatuck	The Commercial Record	2,336
	Wayland	The Wayland Globe	3,177
Antrim	Bellaire	Antrim County News	4,173
	Central Lake	The Torch	1,926
	Elk Rapids	The Elk Rapids Progress	414
	Elk Rapids	Town Meeting	1,243
Arenac	Standish	Arenac County Independent	5,848
Baraga	L'Anse	L'Anse Sentinel	4,241
Barry	Freeport	Freeport News	688
	Hastings	Hastings Banner	4,177
	Middleville	Middleville Sun and Caledonia News	1,829
	Nashville	Maple Valley News	3,000
Bay	Bay City	Bay City Democrat and Bay County Legal News	1,106
	Bay City	Bay City Enterprise	2,947
	Bay City	Valley Farmer	2,550
	Pinconning	Pinconning Journal	1,605
Benzie	Frankfort	Benzie Co. Record Patriot	27,000
Berrien	Berrien Springs	The Journal Era	2,600
	Bridgman	Community Enterprise	1,400
	Buchanan	Berrien County Record	2,649
	New Buffalo	New Buffalo Times	3,100
	Three Oaks	Galien River Gazette	1,517
	Watervliet	Watervliet Record	1,920
Branch	Bronson	The Bronson Journal	1,934
	Union City	The Register-Tribune	963
Calhoun	Albion	Journal of Albion	1,058
	Homer	Homer Index	793
Cass	Cassopolis	Cassopolis Vigilant	2,000
	Edwardsburg	Edwardsburg Argus	1,000
	Marcellus	The Marcellus News	1,462
Charlevoix	Boyne City	Charlevoix County Press	3,306
	Charlevoix	Charlevoix Courier	3,366
Cheboygan	Cheboygan	The Cheboygan Observer	14,300
	Indian River	Straitsland Resorter	2,520
Clare	Clare	The Clare Sentinel	3,280
	Harrison	Clare County Cleaver	3,800
Clinton	Dewitt	Dewitt/Bath Review	2,275
	Ovid	Maple River News	6,400
	St. Johns	Clinton County News	4,729
Crawford	Grayling	Crawford County Avalanche	3,830
Delta	Gladstone	Delta Reporter	4,942
Eaton	Bellevue	Bellevue Gazette	536
	Charlotte	Republican Tribune	3,609
	Grand Ledge	Independent	3,523
	Olivet	Olivet Optic News	547
	Sunfield	The Sunfield Sentinel	1,145

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1981 (cont.)

County	City	Name[a]	Circulation[b]
Genesee	Clio	The Clio Messenger	3,077
	Davison	Davison Index	8,900
	Fenton	Independent	20,408
	Fenton	Tri-County News	23,602
	Flint	Flint-Genesee County Legal News	1,131
	Flint	The Suburban News	26,083
	Flushing	Flushing Observer	5,305
	Grand Blanc	Grand Blanc Evening News	8,438
	Mt. Morris	Genesee Co. Herald	9,000
	Swartz Creek	Swartz Creek-Flint Township News	4,153
Gladwin	Gladwin	Gladwin County Record & Beaverton Clarion	6,414
Gogebic	Wakefield	The Wakefield News	1,030
Gratiot	Ithaca	Gratiot County Herald	6,021
Hillsdale	Camden	The Farmer's Advance	23,813
	Jonesville	The Jonesville Independent	805
Houghton	Calumet	Copper Island Sentinel	2,575
Huron	Harbor Beach	Harbor Beach Times	3,198
	Pigeon	Progress-Advance	2,657
	Sebewaing	Sebewaing Blade-Crescent	3,294
Ingham	East Lansing	Towne Courier	10,028
	Leslie	Leslie Local Independent	1,709
	Mason	Ingham County News	2,785
	Stockbridge	Town Crier	1,369
	Williamston	The Enterprise	2,026
Ionia	Clarksville	Clarksville Record	650
	Lake Odessa	Lake Odessa Wave	1,931
	Portland	Review & Observer	1,423
Iosco	East Tawas	Iosco County News	6,640
	Oscoda	Press	6,308
Iron	Crystal Falls	The Diamond Drill	2,976
	Iron River	Reporter	4,755
Isabella	Shepherd	The Shepherd Argus	1,045
Jackson	Brooklyn	The Exponent	8,776
	Grass Lake	Public Sentiment	960
	Hanover	Hanover Horton Local	496
	Jackson	The Blazer	2,000
	Parma	The Parma News	736
	Springport	Springport Signal	1,700
Kalamazoo	Climax	The Climax Crescent	725
	Galesburg	The Argus	480
	Portage	Herald Headliner	12,500
	Richland	Richland Journal	610
	Vicksburg	Commercial-Express	2,500

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1981 (cont.)

County	City	Name[a]	Circulation[b]
Kalkaska	Kalkaska	Leader and Kalkaskian	3,209
Kent	Cedar Springs	Cedar Springs Clipper	2,605
	East Grand Rapids	Cadence	5,000
	Lowell	The Grand Valley Ledger	2,600
	Rockford	The Rockford Register	3,086
	Sparta	North Kent Advance	16,000
	Walker	Walker/Westside Advance	25,500
Lake	Baldwin	Lake County Star	2,957
Lapeer	Almont	Almont Times-Herald	2,378
	Imlay City	Tri-City Times	3,300
	Lapeer	Lapeer County Press	20,147
Leelanau	Leland	The Leelanau Enterprise	5,574
Lenawee	Blissfield	Advance	2,733
	Clinton	Clinton Local	1,200
	Hudson	Hudson Post-Gazette	2,030
	Morenci	The Morenci Observer	4,960
	Tecumseh	The Tecumseh Herald	4,975
Livingston	Brighton	Argus	7,325
	Fowlerville	Fowlerville Review	4,394
	Hartland	Hartland Herald	5,818
	Howell	Livingston County Press	12,424
	Pickney	Pickney Post	7,742
Luce	Newberry	Newberry News	3,100
Mackinac	St. Ignace	St. Ignace News	4,389
Macomb	Armada	Armada Times	1,410
	Madison Heights	Oakland Madison Reporter	25,000
	Mt. Clemens	Mt. Clements-Clinton-Fraser Advisor	23,300
	New Baltimore	Anchor Bay Beacon	6,319
	Richmond	The Review	8,956
	Romeo	The Romeo Observer	4,550
	Romeo	Romeo/Washington Twshp. Advisor	6,800
	St. Clair Shores	St. Clair Shores-Roseville-East Detroit Comm. News	27,895
	Sterling Heights	Sterling Heights-Utica-Shelby Community News	11,352
	Sterling Heights	Sterling Heights Advisor	38,600
	Utica	Utica/Shelby Township-Advisor	38,600
	Warren	Warren-Centerline Comm. News	13,399
	Warren	Warren-Sterling Reporter	18,000
Manistee	Bear Lake	Manistee County Pioneer Press	1,881
Menominee	Stephenson	Menominee County Journal	3,765
Missaukee	Lake City	Lake City Waterfront	4,159
Monroe	Carleton	The Carleton Messenger	810
	Dundee	Dundee Reporter	1,400
	Lambertville	Journal Herald	18,000
	Petersburg	Pertsburg Sun	1,100

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1981 (cont.)

County	City	Name[a]	Circulation[b]
Montcalm	Carson City	The Carson City Gazette	2,067
	Edmore	Edmore Times	2,500
	Howard City	Howard City Record	1,529
	Lakeview	Lakeview Enterprise	3,329
Montmorency	Atlanta	Montmorency County Tribune	4,450
Muskegon	Montague	White Lake Observer	8,743
	Norton Shores	The Examiner	12,000
Newaygo	Fremont	Fremont Times-Indicator	8,326
Oakland	Birmingham	Eccentric	19,600
	Clarkston	Clarkston News	4,051
	Clarkston	The Reminder	12,000
	Farmington	Farmington Observer	15,926
	Ferndale	Legal Advisor-Oakland County	1,530
	Holly	Herald Advertiser	1,781
	Lake Orion	Lake Orion Review	2,916
	Milford	Milford Times	5,111
	Milford	Milford-Highland Spinal Column	11,490
	Novi	Novi-Commerce Spinal Column	14,775
	Novi	Novi-Walled Lake News	6,175
	Oxford	The Oxford Leader	2,788
	Pontiac	Oakland County Legal News	1,416
	Pontiac	Waterford Times	50,000
	Rochester	The Rochester Clarion	7,157
	Rochester	The Rochester Eccentric	7,592
	Southfield	The Southfield Eccentric	16,216
	South Lyon	Herald	4,885
	Troy	The Eccentric	9,014
	Union Lake	Spinal Column Newsweekly	15,210
	West Bloomfield	The Eccentric	4,384
	West Bloomfield	West Bloomfield Spinal Column	11,123
Oceana	Hart	Oceana's Herald-Journal	6,780
	New Era	The Oceana County News	6,500
Ogemaw	West Branch	Ogemaw County Herald	5,730
Ontonagon	Ontonagon	Ontonagon Herald	2,863
Osceola	Evart	Evart Review	3,140
	Marion	The Marion Press	1,248
	Reed City	Osceola County Herald	3,255
Oscoda	Mio	Oscoda County Herald	1,102
	Mio	Oscoda County News	2,943
Otsego	Gaylord	The Herald-Time	5,543
	Coopersville	Ottawa Advance	8,500
Ottawa	Grand Haven	West Michigan News Review	6,175
	Grand Haven	Tri-Cities Advance	16,000
	Jenison	Grand Valley Advance	18,000
	Zeeland	Zeeland Record	1,946

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1981 (cont.)

County	City	Name[a]	Circulation[b]
Presque Isle	Onaway	Onaway Outlook	2,089
	Rogers City	Presque Isle County Advance	3,972
Roscommon	Houghton Lake	Houghton Lake Resorter	6,227
	Roscommon	Roscommon Herald-News	4,655
Saginaw	Bridgeport	Birch Run Weekly News	8,000
	Frankenmuth	Frankenmuth News	4,300
	Merrill	The Valley News	8,300
	Saginaw	The Saginaw Press	1,716
	Saginaw	The Township Times	6,965
St. Clair	Algonac	The Courier-Journal	3,587
	Capac	Capac Journal	2,378
	Marine City	St. Clair County Independent Press	4,517
	Yale	Yale Expositor	1,987
St. Joseph	Colon	The Express	1,005
Sanilac	Brown City	The Brown City Banner	2,200
	Carsonville	Carsonville/Pt. Sanilac Journal	1,794
	Croswell	The Sanilac Jeffersonian	6,000
	Deckerville	Deckerville Recorder	1,839
	Marlette	Marlette Leader	2,180
	Minden City	Minden City Herald	1,477
	Sandusky	Sandusky Republican Tribune	3,800
	Sandusky	Sanilac County News-Advisor	3,725
Schoolcraft	Manistique	Pioneer-Tribune	3,990
Shiawassee	Durand	The Durand Express	2,451
	Perry	Shiawassee County Journal	6,000
Tuscola	Caro	Tuscola County Advertiser	13,714
	Cass City	Cass City Chronicle	3,665
	Mayville	Mayville Monitor	1,284
	Millington	Millington Herald-Lakeville Aerial	2,605
	Vassar	Pioneer Times	8,700
Van Buren	Bangor	Bangor Advance	9,100
	Decatur	Decatur Republican	1,730
	Gobles	Gobles News	1,000
	Paw Paw	The Courier-Leader	3,442
Washtenaw	Chelsea	Chelsea Standard	3,769
	Dexter	The Dexter Leader	1,769
	Manchester	The Manchester Enterprise	1,564
	Milan	Booster-Leader	2,984

TABLE XVIII-4. MICHIGAN WEEKLY AND SEMIWEEKLY NEWSPAPERS: 1981 (cont.)

County	City	Name[a]	Circulation[b]
Wayne	Allen Park	The Allen Parker	11,350
	Belleville	Belleville Enterprise & Legal Times	5,100
	Canton Twp.	Canton Eagle	8,100
	Canton Twp.	Canton Observer	9,065
	Dearborn	Dearborn Press & Guide	24,000
	Dearborn Heights	Dearborn Heights Leader	11,000
	Ecorse	Ecorse Advertiser	7,500
	Ecorse	Ecorse Enterprise	950
	Flat Rock	The Guardian	6,500
	Garden City	Garden City Observer	9,170
	Grosse Ille	The Downriver News-Herald	11,700
	Grosse Ille Twnp.	The Ille Camera	3,000
	Grosse Pointe	Grosse Pointe News	17,000
	Hamtramck	The Citizen	12,884
	Inkster	Inkster Ledger Star	2,925
	Lincoln Park	The Lincoln Parker	20,375
	Livonia	Livonia Observer	27,827
	Melvindale	Melvindale Messenger	3,825
	Northville	Record	5,285
	Plymouth	The Community Crier	20,846
	Plymouth	Plymouth Observer	8,608
	Redford	Redford Observer	10,631
	River Rouge	River Rouge Herald	7,500
	Riverview	The Riverview News-Herald	5,100
	Romulus	Romulus Roman	4,200
	Southgate	The Southgate Sentinel	8,750
	Taylor	The Taylor Tribune	19,425
	Trenton	Trenton News-Herald	7,800
	Trenton	Trenton Times	9,300
	Wayne	Wayne Eagle	4,800
	Westland	Westland Eagle	17,200
	Westland	Westland Observer	9,084
	Woodhaven	The News-Herald	3,000
	Wyandotte	Wyandotte News Herald	14,600

SOURCE: Michigan Press Association, Michigan Newspaper Directory and Rate Book, 1981 (Lansing: 1981), pp. 64-91.

a. This list includes all members of the Michigan Press Association; no information is available for other papers which are not members.

b. Circulation figures are taken from the statement of ownership required by the U.S. Postal Service, Audit Bureau of Circulation, Certified Audit Circulation, and figures supplied by publishers.

TABLE XVIII-5. BUSINESS AND RESIDENCE TELEPHONES IN MICHIGAN AND THE UNITED STATES: YEARS ENDED 31 DECEMBER 1961-1980

Year	Michigan				United States			
	Business	Residential	Total	Percentage of households with service[a]	Business	Residential	Total	Percentage of households with service[a]
1961	853,300	2,530,500	3,383,800	n.a.	21,693,500	55,731,900	77,425,400	79
1962	884,800	2,620,700	3,505,500	87	22,702,500	58,269,200	80,971,700	80
1963	914,200	2,726,300	3,640,500	88	23,609,400	60,840,900	84,450,300	81
1964	972,700	2,862,000	3,834,700	91	24,716,600	64,070,800	88,787,400	83
1965	1,020,400	3,044,600	4,065,000	93	26,008,300	67,650,500	93,658,800	85
1966	1,083,900	3,217,100	4,301,000	94	27,413,500	71,372,100	98,785,600	98
1967	1,139,900	3,368,000	4,507,900	94	28,929,300	74,822,600	103,751,900	88
1968	1,198,600	3,512,800	4,711,400	93	30,356,100	78,899,500	109,255,600	89
1969	1,265,800	3,691,500	4,957,300	95	32,220,600	82,980,100	115,200,700	90
1970	1,307,900	3,826,800	5,134,700	95	33,304,800	86,850,000	120,221,000	92
1971	1,332,400	4,012,200	5,344,600	97	34,444,900	90,695,900	125,140,800	93
1972	1,393,000	4,193,000	5,586,000	95	35,989,500	95,613,000	131,602,500	92
1973	1,440,927	4,419,084	5,860,011	98	37,434,884	100,853,505	138,228,389	94
1974	1,487,568	4,577,214	6,064,782	98	38,748,513	105,222,939	143,971,452	94
1975	1,490,220	4,761,455	6,251,675	98	39,497,650	109,510,153	149,007,803	94
1976	1,548,286	4,977,160	6,525,446	99	40,682,411	114,490,857	155,173,288	95
1977	1,611,508	5,157,834	6,769,342	100	42,319,549	119,752,597	162,072,146	96
1978	1,654,291	5,326,848	6,981,139	100	44,284,209	124,742,739	169,026,948	97
1979	1,730,220	5,514,554	7,244,774	101	45,951,980	129,583,132	175,535,112	98
1980	1,737,373	5,567,635	7,305,008	99	47,213,748	133,210,275	180,424,023	96

SOURCE: Federal Communications Commission, Statistics of Communications Common Carriers, (Washington, D.C.: annually), Table 6 (1980).

a. Households with service are the sum of residence main, apartment house PBX and residence service main telephones, and other residence PBX systems. There tends to be a slight overstatement of the proportion of households with telephone service.

n.a.: not available.

TABLE XVIII-6. SELECTED DATA OF CLASS A TELEPHONE CARRIERS IN MICHIGAN: YEARS ENDED 31 DECEMBER 1961-1980

Year	Miles of wire in cable (1,000)	Miles of aerial wire (1,000)	Miles of radio relay system	Central offices	Number of calls originating from company and service telephones[a] (millions)	
					Local	Toll
1961	15,315	379	1,869	651	5,378	164
1962	15,830	367	1,657	661	5,412	171
1963	16,534	360	1,749	667	5,704	186
1964	17,686	337	1,803	705	6,009	306
1965	19,062	318	2,048	712	6,450	235
1966	20,841	308	2,206	725	6,755	264
1967	23,032	288	2,191	805	7,220	295
1968	25,217	264	2,280	817	7,441	383
1969	27,503	226	2,432	833	7,956	351
1970	29,510	184	2,421	837	8,324	383
1971	31,279	157	2,588	848	8,887	407
1972	33,273	128	2,335	862	9,278	566
1973	35,825	108	2,801	883	9,672	676
1974	38,416	97	2,853	903	10,113	699
1975	40,691	76	3,473	926	10,116	976
1976	42,532	61	2,939	934	10,615	1,055
1977	44,328	52	2,362	941	11,105	1,186
1978	46,438	39	2,324	954	11,752	1,238
1979	48,869	33	2,357	959	12,080	1,286
1980	50,743	27	2,917	972	12,470	1,328

SOURCE: Federal Communications Commission, Statistics of Communications Common Carrier, (Washington, D.C.: annually), Table 8 (1980).

a. Partly estimated.

TABLE XVIII-7. NUMBER OF TELEPHONE MAIN STATIONS IN MICHIGAN AT YEAR END: 1977-1981

Company	Main office	1977	1978	1979	1980	1981
Alba	Alba	416	444	497	550	586
Allendale	Allendale	2,582	2,798	2,960	2,991	3,045
Au Gres	Au Gres	2,005	1,920	2,075	2,159	2,212
Augusta[a]	Augusta	1,232	1,270	1,370	1,360	1,338
Banfield	Banfield	970	1,008	1,002	1,028	--
Baraga	Baraga	1,489	1,595	1,542	1,582	1,597
Barry County	Delton	3,417	3,461	3,668	3,733	4,849
Blanchard Tel. Assn., Inc.	Blanchard	798	843	865	875	888
Bloomingdale	Bloomingdale	1,071	1,129	1,181	1,207	1,211
Camden	Camden	4,022	4,105	4,150	4,179	4,232
Carr	Branch	725	758	821	841	888
Central[b]	Chesaning	13,913	14,771	15,178	15,482	15,773
Chatham	Chatham	1,838	1,937	2,003	2,033	2,088
Chippewa County	Brimley	691	648	619	743	675
Clayton	Clayton	530	541	554	563	546
Climax	Climax	725	754	799	814	829
Concord	Concord	1,303	1,345	1,352	1,349	1,325
Continental	Pinconning	30,547	32,347	33,704	34,772	34,810
Deerfield Farmers	Deerfield	1,944	2,035	2,112	2,122	2,028
Drenthe	Drenthe	455	474	466	487	486
Drummond Island	Drummond	870	956	1,062	1,163	1,234
Farmers Mutual	Chapin	455	480	486	497	543
General	Main	403,385	417,929	431,712	439,990	439,914
	PBX	49,189	52,615	53,532	56,589	57,393
Hadley	Hadley	837	905	969	983	1,005
Hickory	Hickory Corners	952	990	1,023	1,054	1,064
Island	Bois Blanc	295	313	333	364	373
Kaleva	Kaleva	1,266	1,363	1,418	1,428	1,459
Kingsley	Kingsley	1,434	1,541	1,584	1,644	1,667
Lennon	Lennon	1,316	1,366	1,422	1,475	1,495
Mesick	Mesick	1,553	1,579	1,586	1,582	1,676
Michigan Bell	Main	2,992,973	3,038,858	3,137,272	3,135,488	3,118,904
	PBX	696,225	712,685	729,627	738,547	745,431
Mid-Michigan Tel. Corporation	Stockbridge	27,983	28,886	30,958	31,167	31,952
Midway	Watton	683	656	685	685	697
Midwest[b]	Chesaning	--	--	--	--	--

TABLE XVIII-7. NUMBER OF TELEPHONE MAIN STATIONS IN MICHIGAN AT YEAR END: 1977-1981 (cont.)

Company	Main office	1977	1978	1979	1980	1981
Munising	Munising	3,033	3,051	3,074	3,115	3,175
New Morenci Home	Morenci	1,439	1,623	1,639	1,596	1,655
Northern	Chesaning	785	791	779	761	821
Ogden Mutual	Blissfield	396	402	393	386	384
Ontonagon County	Ontonagon	3,412	3,345	3,437	3,537	3,698
Parma[c]	Parma	1,568	1,532	--	--	--
Peninsula	Old Mission	676	717	742	741	759
Pigeon	Pigeon	1,160	1,166	1,184	1,197	1,186
Public Service[b]	Chesaning	--	--	--	--	--
Sand Creek	Adrian	975	978	977	982	982
Shiawassee	Perry	3,266	3,439	3,602	3,692	3,711
Southern	Brooklyn	8,338	8,735	9,154	9,243	9,220
Springport	Springport	1,308	1,318	1,346	1,337	1,327
Twining	Twining	399	400	411	404	396
United[a]	Augusta	--	--	--	--	--
Upper Peninsula	Carney	2,045	2,119	2,199	2,267	2,542
Waldron	Waldron	407	419	436	550	557
Westphalia	Westphalia	681	692	705	710	718
Winn	Winn	437	450	459	459	477
Wolverine	Millington	5,688	5,984	6,188	6,294	6,319
Amberg[d]		1,266	1,054	n.a.	--	--
Niagara[d]		2,489	2,573	n.a.	--	--

SOURCE: Michigan Public Service Commission, special release; and Michigan Independent Telephone Association, special release.

NOTE: General Telephone Company of Indiana, General Telephone Company of Ohio, and General Telephone Company of Wisconsin also have exchanges in Michigan.

a. United changed name to Augusta.

b. Midwest and Public Service merged into Central.

c. The Parma Telephone Company merged with the Mid-Michigan Telephone Corporation and is operated as a separate exchange of that company.

d. Headquartered in Wisconsin. Amberg had telephones in Goodman and Pembrine; Niagara in Aurora, Florence, Niagara, and Spread Eagle.

n.a.: not available.

XIX. ENERGY PRODUCTION AND CONSUMPTION

The Energy Administration, Michigan Department of Commerce, has developed data on energy usage and prospects for the state, in total and by type. The U.S. Department of Energy is another source of broad energy statistics. Figures on hydrocarbon production, consumption, and reserves are compiled by the U.S. Bureau of Mines in cooperation with the Geological Survey Division, Michigan Department of Natural Resources. Consumption of motor fuels is estimated by the U.S. Highway Administration on the basis of motor fuel tax receipts. The Michigan Public Service Commission publishes financial statistics on the operations of natural gas distribution and electric utilities. The Federal Power Commission is a leading source of data on the physical aspects of electricity production. The Edison Electric Institution publishes various statistics in its Statistical Yearbook of the Electric Utility Industry. The American Gas Association publishes data on gas utilities in its annual Gas Facts.

Consumption of fuels for heat and power is a regular feature of the Census of Manufactures, conducted twice each decade. The Housing Census yields information about the kinds of fuel used for space and water heating and cooking.

Related data on oil and gas wells and natural gas processing appear in chapter XIII. A list of oil refineries in the state is presented in chapter XV.

Data on plant and consumer of each electric and gas distribution utility are available from the records of the Michigan Public Service Commission in the Michigan Department of Commerce. The PSC is responsible for regulating public utilities.

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TABLE XIX-1. PER CAPITA AND TOTAL ENERGY CONSUMPTION IN MICHIGAN AND THE UNITED STATES: 1960-1980

Year	Per capita (Thousands BTU)		Total (Trillion BTU)		Michigan as a percentage of United States	
	Michigan	United States	Michigan	United States	Per capita	Total
1960	235	245	1,843.7	44,079.7	96	4.2
1961	237	244	1,878.1	44,722.8	97	4.2
1962	250	252	1,989.3	46,797.7	99	4.2
1963	259	258	2,094.0	48,605.3	100	4.3
1964	262	266	2,150.9	50,775.6	99	4.2
1965	274	274	2,288.9	52,989.1	100	4.3
1966	288	286	2,448.1	55,992.1	101	4.4
1967	291	293	2,507.7	57,891.8	99	4.3
1968	304	308	2,646.0	61,323.3	99	4.3
1969	314	321	2,757.1	64,529.0	98	4.3
1970	308	328	2,736.5	66,828.1	94	4.1
1971	317	331	2,844.0	68,299.7	96	4.2
1972	332	344	2,995.7	71,627.8	97	4.2
1973	339	355	3,078.5	74,602.5	95	4.1
1974	321	344	2,925.9	72,755.1	93	4.0
1975	314	332	2,858.8	70,709.5	95	4.0
1976	327	347	2,974.7	74,509.3	94	4.0
1977	314	353	2,871.8	76,335.5	89	3.8
1978	318	358	2,925.7	76,186.3	89	3.7
1979	315	359	2,901.6	78,903.1	88	3.7
1980	299	334	2,768.0	75,944.0	90	3.6

SOURCE: Developed from the Energy Information Administration, U.S. Department of Energy, *Federal Energy Data System (FEDS) Statistical Summary Update*, (Washington, D.C.: U.S. Government Printing Office, 1982), Table 1; and Table I-2.

TABLE XIX-2. PERCENTAGE CHANGE IN ENERGY CONSUMPTION IN MICHIGAN AND THE UNITED STATES, BY FUEL TYPE AND CONSUMER TYPE: 1960-1970, 1970-1980, AND 1960-1980 (cont.)

	Percentage change					
	Michigan			United States		
Item	1960-70	1970-80	1960-80	1960-70	1970-80	1960-80
By end use sector w/out and with electricity distributed						
Residential without	44	- 0.03	39	34	- 13	17
with	55	6	65	61	14	84
Commercial without	57	23	93	42	- 4	36
with	74	26	19	71	26	116
Industrial without	22	- 23	- 6	36	- 7	27
with	36	- 12	20	43	5	49
Transportation without	54	5	62	53	23	87
with	52	5	59	53	23	87
Energy input at electric utilities	103	42	188	98	50	197
Electricity exchanged across state borders	32	---	---	---	---	---
Electricity sales	100	26	152	102	50	204
Associated losses	95	26	145	96	50	195
TOTAL ENERGY CONSUMED	48	1.2	50	52	14	72

SOURCE: Developed from Energy Information Administration, U.S. Department of Energy, Federal Energy Data System (FEDS) Statistical Summary Update (Washington, D.C.: U.S. Government Printing Office, 1980, Tables 1, 3, 4, 5, and 6.

TABLE XIX-3. PER CAPITA ENERGY CONSUMPTION IN MICHIGAN AND UNITED STATES: 1960, 1970, AND 1980 (cont.)

Item	Consumption Per capita (thousands of BTU)					
	Michigan			United States		
	1960	1970	1980	1960	1970	1980
By end use sector w/out and with electricity distributed						
Residential without	43	55	51	33	39	30
with	57	77	79	46	66	67
Commercial without	15	21	25	17	21	18
with	25	38	46	27	41	47
Industrial without	86	92	68	91	109	92
with	105	125	107	113	142	134
Transportation without	49	67	67	58	79	86
with	49	67	67	58	79	87
Energy input at electric utilities	38	68	93	46	80	108
Electricity exchanged across state borders: Net	4	5	-5	--	--	--
Electricity sales	12	21	26	13	23	31
Associated losses	30	51	62	33	57	76
TOTAL ENERGY CONSUMED	235	308	299	245	328	334

SOURCE: Developed form Energy Information Administration, U.S. Department of Energy, *Federal Energy Data System (FEDS) Statistical Summary Update* (Washington, D.C.: U.S. Government Printing Office, 1982 Tables 1, 3, 4, 5, and 6.

TABLE XIX-4. MICHIGAN ENERGY CONSUMPTION, IN TRILLIONS OF BRITISH THERMAL UNITS, BY FUEL TYPE: 1960-1980

	Fossil fuels			Electricity			
Year	Coal	Natural gas	Petroleum products	Nuclear power	Hydro electricity	Imported electricity[a]	Total
1960	671.0	383.0	721.8	0.0	35.3	32.6	1,843.7
1961	653.7	422.6	735.1	0.0	31.6	35.1	1,878.1
1962	714.8	459.2	758.8	0.0	18.7	37.8	1,989.3
1963	779.7	479.3	779.9	1.5	9.7	43.8	2,094.0
1964	800.9	515.3	779.8	2.3	12.3	40.4	2,150.9
1965	851.6	573.6	806.3	2.1	14.6	40.7	2,288.9
1966	921.3	636.6	845.1	4.0	18.4	22.6	2,448.1
1967	893.3	708.1	866.6	5.8	20.8	13.1	2,507.7
1968	959.9	722.3	916.6	4.8	17.4	25.1	2,646.0
1969	935.1	800.6	960.1	4.4	15.4	41.5	2,757.1
1970	858.6	834.2	982.9	4.1	13.7	43.1	2,736.5
1971	875.4	876.9	1,021.6	4.2	24.0	41.9	2,844.0
1972	876.8	888.1	1,103.5	22.9	44.6	59.7	2,995.7
1973	819.4	939.0	1,148.7	32.5	48.0	90.8	3,078.5
1974	726.6	958.4	1,103.3	4.6	50.4	82.5	2,925.9
1975	758.9	902.2	1,100.4	79.0	14.9	3.4	2,858.8
1976	722.9	905.1	1,169.3	109.4	39.7	28.4	2,974.7
1977	693.9	755.7	1,204.3	110.2	73.5	34.3	2,871.8
1978	674.1	802.9	1,251.5	143.4	80.9	-27.1	2,925.7
1979	758.7	892.1	1,075.1	161.1	13.6	1.0	2,901.6
1980	738.5	886.2	946.2	169.1	71.3	-43.2	2,768.0

SOURCE: Michigan Department of Commerce, Energy Information Administration, State Energy Data Report 1960 through 1980, July 1982.

A. Includes associated eletrical energy losses. A positive interstate exchange indicates more electrical energy was transferred into the state than out of the state. A negative interstate exchange indicates more electrical energy was transferred out of the state than into the state.

TABLE XIX-5. MICHIGAN ENERGY CONSUMPTION IN TRILLIONS OF BRITISH THERMAL UNITS BY THE RESIDENTIAL SECTOR: 1960-1980

Year	Coal	Natural gas	Petroleum products	Electricity sales	Electrical[a] energy losses	Total
1960	23.6	209.0	106.9	29.8	74.5	443.9
1961	23.4	225.7	114.2	31.3	76.8	471.4
1962	22.8	242.7	117.1	32.6	78.7	493.8
1963	19.8	250.4	115.0	34.0	81.4	500.6
1964	15.8	259.0	109.1	36.1	85.9	505.9
1965	17.7	279.7	112.0	38.6	92.5	540.5
1966	18.3	296.3	114.6	42.1	101.1	572.4
1967	13.6	312.2	124.2	45.1	108.0	603.1
1968	13.1	325.5	127.5	49.6	118.6	634.2
1969	11.3	343.6	126.6	54.0	129.7	665.3
1970	8.8	350.6	129.7	58.4	141.7	689.1
1971	8.9	354.4	141.9	62.0	150.9	718.2
1972	6.3	364.9	150.4	66.2	159.7	747.4
1973	6.5	348.4	144.2	69.1	167.3	735.5
1974	5.3	354.4	132.9	69.2	170.5	732.3
1975	4.1	341.6	131.5	71.3	172.8	721.2
1976	4.2	345.9	132.9	72.8	174.9	730.6
1977	3.6	304.9	130.9	74.1	180.2	69[illegible].6
1978	3.2	333.5	132.3	74.6	180.6	724.2
1979	1.6	376.0	88.5	75.2	181.6	723.0
1980	2.9	396.6	73.5	76.0	184.0	733.3

SOURCE: Michigan Department of Commerce, Energy Information Administration, State Energy Data Report, 1960 through 1980, July 1982.

a. Incurred in the generation and transmission of electricity plus plant use and unaccounted for electrical energy losses that are attributed to each sector in proportion to the sector's share of total electricity sales in the state.

TABLE XIX-6. MICHIGAN ENERGY CONSUMPTION IN TRILLIONS OF BRITISH THERMAL UNITS BY THE COMMERCIAL SECTOR: 1960-1980

Year	Coal	Natural gas	Petroleum products	Electricity sales	Electrical[a] energy losses	Tot[illegible] ene[illegible] con[illegible]
1960	42.3	44.5	31.1	21.4	53.6	[illegible]
1961	42.7	44.3	32.7	22.7	[illegible]	[illegible]
1962	41.6	66.8	33.4	24.4	[illegible]	[illegible]
1963	35.6	70.8	33.5	26.4	[illegible]	[illegible]
1964	27.9	76.7	32.5	28.6	[illegible]	[illegible]
1965	31.4	87.5	32.6	30.6	73.5	[illegible]
1966	32.5	98.4	32.1	33.2	79.9	[illegible]
1967	24.5	111.2	30.2	35.3	84.6	[illegible]
1968	23.4	120.8	31.4	38.5	92.0	[illegible]
1969	20.2	134.1	32.6	41.3	99.2	327.3
1970	15.4	136.8	33.3	44.0	106.9	336.5
1971	15.7	150.7	34.7	46.6	113.5	361.3
1972	11.2	164.3	37.9	49.2	118.6	381.2
1973	11.0	183.9	36.0	52.7	127.8	411.4
1974	8.7	193.7	33.6	51.9	127.7	415.5
1975	7.0	185.6	32.6	49.6	120.2	395.0
1976	7.4	181.6	35.9	51.8	124.4	401.1
1977	6.3	133.8	36.1	53.8	130.8	360.6
1978	5.1	145.2	35.4	54.5	132.0	372.3
1979	2.4	185.6	23.4	56.7	136.8	404.9
1980	5.3	194.8	27.5	57.0	138.0	422.6

SOURCE: Michigan Department of Commerce, Energy Information Administration, State Energy Data Report 1960 through 1980, July 1982.

[a] Incurred in the generation and transmission of electricity plus plant use and unaccounted for electrical energy losses that are attributed to each sector in proportion to the sector's share of total electricity sales in the state.

TABLE XIX-7. MICHIGAN ENERGY CONSUMPTION IN TRILLIONS OF BRITISH THERMAL UNITS BY THE INDUSTRIAL SECTOR: 1960-1980

Year	Coal	Natural gas	Petroleum products	Indus. Hydro-power	Electricity sales	Electrical[a] energy losses	Total energy consumed
1960	342.9	121.3	205.5	2.3	42.6	106.6	821.2
1961	330.7	142.3	203.9	1.6	41.6	102.1	822.2
1962	305.5	145.1	207.1	1.4	47.7	115.1	866.9
1963	393.2	153.3	207.8	1.3	53.3	127.9	936.9
1964	396.0	172.3	196.5	1.4	58.4	139.2	963.8
1965	401.3	198.6	205.3	1.5	66.0	158.3	1,031.0
1966	411.7	232.2	207.0	1.6	73.4	176.6	1,102.6
1967	376.2	270.7	194.3	1.8	74.8	178.9	1,096.8
1968	403.5	260.5	195.4	1.8	82.2	196.7	1,140.0
1969	361.2	298.0	205.9	1.7	88.4	212.1	1,167.1
1970	346.8	269.9	203.7	1.3	85.9	208.6	1,116.1
1971	354.2	283.8	195.3	1.6	93.1	226.6	1,154.7
1972	361.5	281.9	213.9	1.5	101.9	245.8	1,206.6
1973	307.5	330.5	219.9	1.7	112.3	272.0	1,244.0
1974	224.2	328.5	200.8	1.4	103.3	254.3	1,112.5
1975	253.0	306.4	184.5	1.3	98.5	238.8	1,082.4
1976	228.7	310.9	219.9	1.3	113.3	272.3	1,146.3
1977	188.6	272.1	239.7	1.3	117.8	286.5	1,106.0
1978	169.3	282.9	235.3	1.4	121.5	294.2	1,104.7
1979	208.3	278.7	182.6	1.3	120.1	290.0	1,080.9
1980	198.2	254.8	175.9	1.2	104.6	253.4	988.2

SOURCE: Michigan Department of Commerce, Energy Information Administration, State Energy Data Report, 1960 through 1980, July 1982.

[a] Incurred in the generation and transmission of electricity plus plant use and unaccounted for electrical energy losses that are attributed to each sector in proportion to the sector's share of total electricity sales in the state.

TABLE XIX-8. MICHIGAN ENERGY CONSUMPTION IN TRILLIONS OF BRITISH THERMAL UNITS BY THE TRANSPORTATION SECTOR: 1960-1980

Year	Coal	Natural gas	Petroleum products	Electricity sales	Electrical[a] energy losses	Total energy consumed
1960	6.0	2.7	375.7	0.4	0.9	385.7
1961	1.5	1.8	381.6	0.4	1.1	386.4
1962	1.4	1.9	398.5	0.5	1.1	403.5
1963	1.5	2.7	421.2	0.5	1.1	427.0
1964	1.5	4.7	439.5	0.5	1.2	447.3
1965	1.3	4.7	454.0	0.5	1.2	461.7
1966	1.2	7.1	486.9	0.5	1.1	496.9
1867	0.9	9.1	510.5	0.4	1.1	522.0
1968	0.9	8.5	555.0	0.4	1.0	565.8
1969	0.6	9.0	586.4	0.4	0.9	597.4
1970	0.6	10.7	582.2	0.4	1.0	594.8
1971	0.5	15.9	592.0	0.4	1.0	609.8
1971	0.5	15.9	592.0	0.4	1.0	609.8
1972	0.4	16.6	642.5	0.3	0.8	660.6
1973	0.2	12.3	673.9	0.3	0.8	687.5
1974	0.1	11.2	653.0	0.4	0.9	665.6
1975	(b)	10.4	649.0	0.2	0.5	660.2
1976	(b)	12.0	683.9	0.2	0.5	696.7
1977	(b)	11.8	699.0	0.2	0.5	711.6
1978	0.0	3.6	720.3	0.2	0.5	724.6
1979	0.0	12.6	679.4	0.2	0.6	692.8
1980	0.0	12.7	610.5	0.2	0.6	623.9

SOURCE: Michigan Department of Commerce, Energy Information Administration, State Energy Data Report, 1960 through 1980, July 1982.

a. Incurred in the generation and transmission of electricity plus plant use and unaccounted for electrical energy losses that are attributed to each sector in proportion to the sector's share of total electricity sales in the state.

b. Represents: small, non-zero value.

TABLE XIX-9. MICHIGAN CONSUMPTION OF REFINED PETROLEUM PRODUCTS: 1960-1980

(In thousands of barrels)

Year	Asphalt	Aviation gasoline	Distil-late	Jet fuel	Kero-sene	LPG	Lubri-cants	Gaso-line	Resid-ual	Road oil	All other petroleum	Total refined petroleum products
1960	2,812	1,415	28,987	3,405	4,072	2,763	2,497	64,928	11,424	124	7,369	129,795
1961	2,431	1,361	30,701	3,574	6,286	2,704	2,430	64,864	10,000	132	7,797	132,278
1962	2,672	1,616	31,272	4,155	6,985	2,984	2,462	67,332	9,231	178	7,892	136,778
1963	2,450	1,646	30,436	4,193	6,145	3,733	2,461	71,299	9,753	165	8,719	140,999
1964	2,013	1,698	29,690	4,477	6,033	3,418	2,584	73,654	8,872	80	8,832	141,352
1965	2,062	1,833	30,642	4,411	5,880	3,621	3,025	77,319	8,191	202	9,141	146,326
1966	3,075	2,057	31,663	5,161	4,604	4,316	3,142	82,423	7,802	63	9,324	153,630
1967	3,086	2,234	36,878	6,240	2,880	5,334	2,554	84,448	5,520	73	8,975	158,222
1968	3,507	2,773	36,661	7,465	2,922	5,596	2,806	90,801	5,656	86	9,206	167,479
1969	3,132	2,821	37,471	7,836	2,789	6,487	3,099	95,369	6,698	125	9,708	175,536
1970	3,741	658	38,106	7,396	3,124	6,058	3,157	96,833	10,059	139	9,476	178,748
1971	3,707	380	41,684	7,228	3,018	6,606	2,785	99,548	11,605	59	9,148	185,768
1972	4,522	501	48,451	6,936	2,645	7,818	2,982	105,198	11,388	115	9,911	200,467
1973	5,237	554	46,994	6,987	1,995	7,906	3,676	110,100	14,560	130	10,185	208,324
1974	4,793	302	44,080	6,488	1,600	7,665	3,521	107,057	14,876	78	9,701	200,161
1975	3,835	369	41,671	5,823	1,349	7,316	2,751	108,256	18,739	50	9,360	199,528
1976	3,466	396	43,789	5,853	1,551	8,585	3,056	113,506	20,656	21	11,314	212,191
1977	4,111	447	44,798	6,411	1,421	8,626	3,272	114,812	21,345	31	12,866	218,139
1978	4,330	467	45,442	6,916	1,360	8,878	2,513	117,526	24,871	45	13,075	226,425
1979	4,152	395	31,642	7,159	1,535	10,004	3,676	108,261	18,799	11	10,781	196,416
1980	3,483	476	27,789	7,294	1,233	9,260	3,274	97,025	12,011	25	11,610	173,479

SOURCE: Michigan Department of Commerce, Energy Information Administration, Michigan Energy Data Report, 1960 through 1980, July 1982.

TABLE XIX-2. PERCENTAGE CHANGE IN ENERGY CONSUMPTION IN MICHIGAN AND THE UNITED STATES, BY FUEL TYPE AND CONSUMER TYPE: 1960-1970, 1970-1980, AND 1960-1980

	Percentage change					
	Michigan			United States		
Item	1960-70	1970-80	1960-80	1960-70	1970-80	1960-80
Gross energy consumption:						
By fuel type						
Petroleum						
Asphalt	33	- 7	24	47	- 7	36
Aviation gasoline	- 54	- 27	- 66	- 66	- 36	- 78
Distilate fuel	31	- 27	- 4	35	13	53
Jet fuel	123	- 1	121	167	11	197
Kerosene	- 23	- 61	- 70	- 0.03	- 40	- 42
LPG	106	49	206	85	17	117
Lubricants	26	4	32	16	18	37
Motor gasoline	49	- 0.2	49	45	14	66
Residual fuel	- 12	- 20	5	44	14	64
Road oil	13	- 78	- 75	64	- 74	- 56
All other petroleum	29	- 22	57	79	66	198
Total petroleum	36	- 4	31	48	16	72
Total coal	28	- 14	10	25	22	53
Natural gas	118	6	131	76	- 6	65
Nuclear power	---	4,024	---	3,888	1,017	44,432
Hydro-electric power	- 61	420	102	61	17	88
TOTAL ENERGY CONSUMED	48	1.2	50	52	14	72

TABLE XIX-3. PER CAPITA ENERGY CONSUMPTION IN MICHIGAN AND UNITED STATES: 1960, 1970, AND 1980

Item	Consumption Per capita (thousands of BTU)					
	Michigan			United States		
	1960	1970	1980	1960	1970	1980
Gross energy consumption:						
By fuel type						
Petroleum						
Asphalt	2	3	3	4	5	4
Aviation gasoline	1	0.4	0.3	2	1	0.3
Distilate fuel	22	25	18	22	26	27
Jet fuel	2	5	4	4	10	10
Kerosene	3	2	1	3	3	1
LPG	1	3	4	5	8	9
Lubricants	2	2	2	1	1	2
Motor gasoline	44	57	55	42	54	56
Residual fuel	9	7	8	20	25	25
All other petroleum	6	7	8	7	11	17
Total petroleum	92	111	102	111	145	151
Total Coal	86	97	80	56	62	68
Natural gas	49	94	95	69	107	90
Nuclear power	0	1	18	0.03	1	12
Hydro-electric power	5	2	8	9	13	14
TOTAL ENERGY CONSUMED	235	308	299	245	328	334

TABLE XIX-10. MICHIGAN RESIDENTIAL SECTOR RETAIL ENERGY PRICES: 1979-1981

Year	Electricity (cents/kWh)	Natural gas (dollars/Mcf)	#2 fuel oil (cents/gallon)	Gasoline (cents/gallon)	Liquified Petroleum gases (cents/gallon)
1970	2.51	1.05	17.95	33.82	11.34
1971	2.51	1.07	18.46	34.35	11.38
1972	2.57	1.08	18.62	34.23	11.49
1973	2.79	1.13	21.12	39.53	14.46
1974	3.09	1.16	33.86	57.53	21.10
1975	3.84	1.68	36.99	59.59	22.72
1976	4.10	1.92	40.56	62.45	26.74
1977	4.32	2.24	46.82	66.24	31.56
1978	4.73	2.36	50.02	68.72	31.38
1979	4.89	2.73	72.03	93.31	34.59
1980	5.52	3.18	100.10	129.37	63.00
1981	6.08	3.94	124.00	143.50	76.00[P]

SOURCE: Consumers Power Company, Detroit Edison Company, Michigan Public Service Commission, U.S. Department of Labor, U.S. Department of Energy, American Automobile Association as reported in Michigan Department of Commerce, Energy Information Administration, *Michigan Energy Data Book*, (Lansing: 1980), p. 115.

P: Preliminary

NOTE: Prices are based on the following assumptions: *Electricity* - average monthly billing for 500 kWh usage; *natural gas* - billing charge for 175 Mcf annual usage; *#2 fuel oil* - average monthly price in the Detroit area; *gasoline* - average leaded and unleaded prices derived from a survey of 300 major brand stations along main state travel routes; *liquified petroleum gases* - average regional and national prices.

TABLE XIX-11. MICHIGAN COMMERCIAL SECTOR RETAIL ENERGY PRICES: 1970-1980

Year	Electricity (cents/kWh)	Natural gas (dollars/Mcf)	Distillate (cents/gallon)	Residual (dollars/barrel)
1970	2.29	.84	15.10	4.48
1971	2.37	.87	15.65	5.63
1972	2.47	.90	15.84	5.38
1973	2.58	.96	17.06	7.02
1974	3.01	1.13	31.57	13.96
1975	3.59	1.48	34.28	13.64
1976	4.01	1.82	37.38	14.16
1977	4.32	2.12	43.77	16.51
1978	4.67	2.23	46.03	17.20
1979	4.93	2.58	69.82	19.42
1980	5.56^{p}	3.00^{p}	97.00^{p}	26.09^{p}

SOURCE: Michigan Department of Commerce, Energy Information Administration, State Physical Unit Price Data Base.

P: Preliminary

TABLE XIX-12. MICHIGAN INDUSTRIAL SECTOR RETAIL ENERGY PRICES: 1970-1980

Year	Electricity (cents/kWh)	Natural gas (dollars/Mcf)	Distillate (cents/gallon)	Residual (dollars/barrel)	Kerosene (cents/gallon)	LPG (cents/gallon)
1970	1.19	.53	15.02	4.41	18.08	9.95
1971	1.29	.56	15.56	5.52	18.92	9.93
1972	1.34	.63	15.74	5.30	19.12	9.99
1973	1.44	.69	16.97	6.89	18.09	13.09
1974	1.90	.91	31.48	13.83	30.60	19.68
1975	2.48	1.23	34.19	13.52	36.01	21.31
1976	2.70	1.53	37.29	13.94	33.53	25.14
1977	2.93	1.81	43.65	16.28	44.07	29.59
1978	3.28	1.90	45.90	16.91	47.39	29.35
1979	3.54	2.25	69.68	19.19	69.90	32.84
1980	3.99^{p}	2.62^{p}	96.71^{p}	25.78^{p}	97.00^{p}	59.78^{p}

SOURCE: Michigan Department of Commerce, Energy Information Administration, State Physical Unit Price Data Base.

p: Preliminary

TABLE XIX-13. ESTIMATED PROVED RECOVERABLE RESERVES OF NATURAL GAS IN MICHIGAN AND THE UNITED STATES: 31 DECEMBER 1952-1981

	Michigan natural gas				United States
Year	Non-associated[a]	Associated-dissolved[b]	Underground storage[c]	Total	United States Total
1952	132,752	38,645	83,146	254,543	199,716,225
1953	34,629	46,780	194,110	275,519	211,447,132
1954	31,194	85,703	213,203	330,100	211,710,732
1955	46,764	73,013	206,097	325,874	223,697,445
1956	45,596	82,098	234,092	361,786	237,774,569
1957	84,941	80,980	278,107	444,028	246,569,255
1958	121,669	104,627	271,817	498,113	254,142,037
1959	116,255	113,889	285,259	515,403	262,596,593
1960	116,015	128,427	341,316	585,758	263,758,800
1961	138,966	158,562	369,136	666,664	267,727,671
1962	128,620	144,733	377,207	650,560	273,765,604
1963	112,403	138,924	471,485	722,812	276,151,233
1964	151,853	127,372	495,051	774,276	281,251,454
1965	108,141	127,174	510,489	745,804	286,468,923
1966	73,556	118,999	580,576	773,131	289,332,805
1967	90,774	87,711	582,427	760,912	292,907,703
1968	77,274	79,909	600,243	767,426	287,349,856
1969	73,268	82,186	595,510	750,964	275,108,835
1970	211,134	112,530	616,007	939,671	290,746,408
1971	179,479	184,541	652,462	1,016,482	278,805,618
1972	293,938	385,580	617,297	1,296,815	266,084,846
1973	492,825	431,086	624,597	1,548,508	249,950,207
1974	477,613	455,230	525,411	1,458,254	237,132,497
1975	483,268	536,766	586,715	1,606,749	228,200,176
1976	528,778	524,475	544,893	1,598,146	216,026,074
1977	614,184	587,542	589,474	1,791,200	208,877,878
1978	607,556	562,190	598,835	1,768,581	200,301,707
1979	605,819	531,784	660,320	1,797,923	194,916,624
1979[d]	601,000	733,000	n.a.	1,334,000	208,335,000
1980[d]	668,000	883,000	n.a.	1,551,000	206,259,000
1981[d]	494,000	758,000	n.a.	1,252,000	209,434,000

SOURCE: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Natural Gas Section, Table 16 (1975); American Petroleum Institute, special release; and U.S. Department of Energy, U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves (annual).

a. Free gas not in contact with crude oil in the reservoir.

b. Associated gas is free gas in contact with crude oil in the reservoir; dissolved gas is gas in solution with crude oil in the reservoir.

c. Gas held in underground reservoirs for storage purposes only.

d. The U.S. Department of Energy now is solely responsible for estimating reserves. Their 1979 figures differ from those of the American Petroleum Institute. There is a large sampling error (20 percent) associated with the DOE estimates for Michigan.

n.a.: not available.

TABLE XIX-14. ESTIMATED PROVED RESERVES OF NATURAL GAS LIQUIDS AND CRUDE OIL IN MICHIGAN AND THE UNITED STATES: 31 DECEMBER 1960-1981

Year	Natural gas liquids[a] (thousand barrels)				Crude oil (million barrels)	
	Michigan			United States total		
	Nonassociated with oil	Associated-dissolved[b]	Total		Michigan	United States
1960	580	1,039	1,619	6,816,059	78	31,613
1961	695	3,621	4,316	7,049,096	79	31,759
1962	2,001	3,423	5,424	7,311,517	75	31,389
1963	2,048	3,278	5,326	7,673,978	69	30,970
1964	969	4,892	5,861	7,746,632	58	30,991
1965	1,565	3,351	4,916	8,023,534	53	31,352
1966	984	3,057	4,041	8,328,966	71	31,452
1967	1,461	2,083	3,544	8,614,231	63	31,377
1968	1,429	2,163	3,592	8,598,108	55	30,707
1969	1,375	2,681	4,056	8,143,174	52	29,632
1970	5,437	4,466	9,903	7,702,941	46	39,001c
1971	4,616	7,968	12,584	7,304,227	59	38,063[c]
1972	5,531	13,495	19,026	6,786,559	--	36,339[c]
1973	7,507	17,539	25,046	6,454,707	72	35,300[c]
1974	4,906	15,358	20,264	6,350,449	82	34,250
1975	3,984	16,649	20,633	6,267,830	93	32,682
1976	5,081	17,316	22,397	6,401,967	139	30,942
1977	11,183	34,015	45,198	5,994,365	133	29,486
1978	20,857	44,836	65,693	5,925,852	190	27,804
1979	28,245	43,281	71,526	5,655,323	176	27,051
1979[d]	n.a.	n.a.	112,000	6,615,000	159	28,810
1980[d]	n.a.	n.a.	112,000	6,728,000	205	29,805
1981[d]	n.a.	n.a.	102,000	7,068,000	240	29,426

SOURCE: Bureau of Mines, *Minerals Yearbook--Metals, Minerals, and Fuels,* 1960 through 1974 (Washington, D.C.: annually), Natural Gas Liquids section, Table 9, and Crude Petroleum and Products section, Table 13 (1975 data); American Petroleum Institute, special release; and U.S. Department of Energy, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves* (annual).

a. Natural gasoline, LP gases, and condensate.

b. Associated natural gas liquids are in contact with crude oil in the reservoir; dissolved natural gas liquids are in solution with crude oil in the reservoir.

c. Includes reserves in the Prudhoe Bay Permo-Triassic reservoir, discovered in 1968 and not included prior to 1970.

d. The U.S. Department of Energy now is solely responsible for estimating reserves. Their 1979 figures differ from those of the American Petroleum Institute. There is a large sampling error (20 percent) associated with the DOE estimates for Michigan.

n.a.: Not available.

TABLE XIX-15. CRUDE RUNS TO STILLS, REFINERY RECEIPTS OF CRUDE OIL, AND PRODUCTION OF GASOLINE IN MICHIGAN: 1952-1980

(Thousands of barrels)

Year	Crude runs to stills	Refinery receipts			Gasoline production
		Michigan crude	Other U.S. crude	Canadian crude	
1952	40,676	13,605	27,321	0	16,929
1953	42,067	12,880	30,059	0	16,942
1954	41,846	13,559	28,860	0	16,140
1955	45,595	12,646	33,589	0	17,894
1956	50,708	11,681	38,356	1,766	19,502
1957	49,414	11,227	37,499	1,535	19,525
1958	44,924	9,412	34,926	1,351	18,294
1959	50,408	10,180	38,611	1,888	19,908
1960	49,768	15,610	31,764	2,542	20,988
1961	47,973	18,453	23,815	5,622	20,513
1962	49,152	17,320	24,342	7,437	21,431
1963	51,380	18,304	26,857	6,227	23,710
1964	51,659	17,423	29,282	4,971	24,989
1965	52,192	14,759	32,184	5,229	25,486
1966	52,949	14,139	32,189	6,686	27,782
1967	50,150	12,800	29,204	8,411	25,664
1968	53,525	12,649	26,249	14,461	26,478
1969	51,877	11,640	27,833	12,547	26,560
1970	53,396	11,159	24,504	17,799	26,804
1971	56,395	10,847	27,381	17,932	27,399
1972	58,447	12,306	28,446	17,780	27,047
1973	44,853	11,624	13,974	19,409	20,509
1974	43,255	12,231	14,951	15,943	19,543
1975	41,318	17,032	15,336	9,248[a]	19,404
1976	45,417	22,123	12,204	11,032	21,230
1977	47,161	25,556	14,247	7,445	21,453
1978	48,670	28,441	12,310	7,736	19,899
1979	47,656	27,520	12,366	7,808	n.a.
1980	36,520	23,771	8,404	4,446	n.a.

SOURCE: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Crude Petroleum and Products section, Tables 16 and 24 (1975 data); and Bureau of Mines, special release (1976 and 1980 data).

a. Includes 418,000 barrels of non-Canadian foreign crude.
n.a.: Not available

TABLE XIX-16. PRODUCING OIL WELLS, AVERAGE PRODUCTION, AND VALUE OF CRUDE PETROLEUM AT WELLS IN MICHIGAN: 1947-1980

Year	Approximate number of oil wells producing 31 December	Average production per well per day[a] (barrels)	Total value at wells (thousands of dollars)	Average value per barrel (dollars)
1947	3,540	12.6	34,540	2.13
1948	3,550	13.0	48,250	2.86
1949	3,820	12.3	45,420	2.75
1950	3,950	11.2	42,730	2.70
1951	3,800	9.8	37,870	2.72
1952	3,980	9.3	35,250	2.66
1953	4,000	8.4	35,870	2.92
1954	4,173	8.1	35,600	2.96
1955	4,034	7.5	32,900	2.92
1956	4,191	7.1	30,824	2.87
1957	3,995	6.8	31,117	3.06
1958	3,895	6.4	27,366	2.94
1959	4,130	7.1	30,688	2.94
1960	4,348	10.3	46,266	2.91
1961	4,301	12.0	55,182	2.92
1962	4,282	10.9	48,775	2.85
1963	4,234	10.3	45,523	2.85
1964	4,151	10.2	43,839	2.81
1965	4,036	9.9	41,091	2.79
1966	4,141	9.6	40,913	2.87
1967	4,004	9.2	39,455	2.89
1968	4,273	8.6	38,287	2.95
1969	3,878	8.2	37,494	3.07
1970	4,311	7.8	36,246	3.10
1971	4,046	7.8	38,859	3.27
1972	3,685	9.2	41,556	3.20
1973	3,733	10.8	59,413	4.07
1974	4,201	12.4	154,746	8.59
1975	3,655	17.0	262,352	10.74
1976	3,770	22.4	329,637	10.84
1977	3,903	23.5	362,722	11.00
1978	3,890	24.4	427,881	12.34
1979	3,890	24.6	520,832	14.94
1980	4,900	21.0	728,562	21.55

SOURCE: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Crude Petroleum and Products section, Tables 10 and 55 (1975 data); and Bureau of Mines, special release (1976 and 1980 data).

a. Based on average number of wells during the year.

TABLE XIX-17. PRODUCTION AND DISPOSITION OF NATURAL GAS IN MICHIGAN AND INTERSTATE NATURAL GAS MOVEMENTS TO AND FROM MICHIGAN: 1960-1980

(Millions of cubic feet)

Year	Production		Disposition			Average wellhead value (cents per mcf)	Interstate movements	
	From gas wells	From oil wells	Used for repressuring	Vented and flared	Marketed production		Deliveries to Canada	Receipts from other states
1960	18,900	8,000	2,087	4,023	20,790	21.4	0	371,540
1961	20,000	12,200	4,023	480	27,697	21.1	0	408,972
1962	18,800	10,500	146	167	28,987	21.3	0	429,472
1963	25,200	10,400	1,640	1,110	32,850	27.1	0	471,030
1964	21,100	12,600	1,608	704	31,388	25.4	0	493,665
1965	24,700	12,200	1,900	442	34,558	25.1	0	547,370
1966	26,868	16,121	8,353	516	34,120	25.2	20,174	653,316
1967	22,709	20,383	7,642	1,861	33,589	24.7	40,418	698,475
1968	24,151	19,779	2,330	1,120	40,480	25.1	68,045	742,934
1969	22,285	16,405	1,719	808	36,163	25.7	29,770	776,010
1970	23,774	16,264	378	809	38,851	26.7	10,643	791,773
1971	10,968	15,482	788	0	25,662	26.4	14,236	839,385
1972	13,523	21,730	0	1,032	34,221	30.7	15,426	823,515
1973	23,272	22,424	0	1,117	44,579	39.2	14,736	925,952
1974	45,745	24,719	63	1,268	69,133	50.4	13,232	869,059
1975	71,907	31,994	176	1,612	102,113	63.4	10,153	826,505
1976	81,628	40,003	327	2,042	119,262	89.5	7,461	742,482
1977	86,037	47,189	981	2,291	129,954	101.0	0	664,617
1978	97,866	54,318	1,401	2,736	148,047	119.7	0	664,144
1979	102,048	62,812	2,169	2,960	159,731	174.0	393	805,953
1980	89,651	74,459	2,375	3,433	158,302	235.5	257,647	862,303

SOURCES: Bureau of Mines, Minerals Yearbook--Metals, Minerals, and Fuels, 1947 through 1975 (Washington, D.C.: annually), Natural Gas Section, Table 16 (1975); and Bureau of Mines, special release (1976, 1977, and 1978 data); U.S. Department of Energy, Natural Gas Production and Consumption 1979, (Washington, D.C.: annually) January 1981; and U.S. Department of Energy, Natural Gas Annual, 1980.

TABLE XIX-18. OIL AND NATURAL GAS PRODUCTION IN MICHIGAN, BY COUNTY: 1980

County	Oil (barrels)	Natural gas (000 cubic feet)	County	Oil (barrels)	Natural gas (000 cubic feet)
Allegan	126,971	26,713	Manistee	7,981,345	40,635,624
Antrim	155,014	400,901	Mason	194,063	1,983,233
Arenac	138,991	0	Mecosta	20,793	6,399
Barry	8,773	0	Midland	180,607	0
Bay	171,719	0	Missaukee	967,014	1,109,034
Benzie	81,755	116,347	Monroe	2,790	0
Calhoun	901,589	1,723,049	Montcalm	77,723	0
Cass	23,995	0	Muskegon	6,494	0
Cheboygan	1,562	0	Newaygo	15,558	15,118
Clare	434,400	634,521	Oakland	128,376	1,433,622
Crawford	1,487,672	3,459,214	Oceana	23,896	0
Eaton	412,001	4,616,746	Ogemaw	588,995	129,699
Genesee	14,321	0	Osceola	158,501	6,122
Gladwin	322,792	0	Oscoda	788	0
Grand Traverse	4,149,467	38,675,710	Otsego	6,456,860	13,465,038
Gratiot	8,285	815	Ottawa	9,629	132,157
Hillsdale	1,242,533	5,944,814	Presque Isle	2,751	0
Huron	790	0	Roscommon	418,141	264,826
Ingham	977,132	2,803,473	Saginaw	51,386	0
Isabella	104,190	7,977	Shiawassee	12,216	0
Jackson	9,967	0	St. Clair	521,261	1,600,310
Kalamazoo	2,081	0	Tuscola	58,821	0
Kalkaska	3,953,441	29,802,104	Van Buren	15,800	0
Kent	99,298	0	Washtenaw	0	30,549
Lake	82,796	0	Wayne	9,481	0
Lapeer	244,470	25,398	Wexford	716,763	2,953,034
Lenawee	572	0			
Livingston	3,290	459,008			
Macomb	26,589	5,876,369	TOTAL	33,808,463	158,337,922

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1980, Annual Statistical Summary 34 (Lansing: 1982), p. 4.

TABLE XIX-19. OIL PRODUCTION IN MICHIGAN, BY GEOLOGIC SYSTEM AND FORMATION: 1978, 1979, 1980 AND CUMULATIVE THROUGH 1980

	First year of production	Production (in barrels)			
		1978	1979	1980	Cumulative thru 1980
Mississippian					
Marshall	1938	819	958	925	85,129
Berea	1925	19,810	22,411	55,596	2,585,144
Devonian					
Traverse	1927	425,975	424,597	457,813	107,122,905
Dundee-Reed City	1927	1,263,315	1,604,906	1,506,950	342,736,233
Detroit River	1939	2,320,982	2,740,009	2,827,265	73,694,710
Silurian					
Salina-Niagaran	1952	28,935,064	28,524,674	27,697,663	189,157,314
Ordovician					
Trenton-Black River	1935	1,697,522	1,429,117	1,262,251	122,219,472
Total barrels, all formations		34,663,487	34,746,672	33,808,463	837,600,907

SOURCE: Michigan Department of Natural Resources, Michigan's Oil and Gas Fields, 1978, 1979, and 1980, Annual Statistical Summary 34 (Lansing: 1979, 1980, and 1981, Tables 8 and 10.

TABLE XIX-20. GAS PRODUCTION IN MICHIGAN, BY GEOLOGIC SYSTEM AND FORMATION: 1978, 1979, AND 1980, AND CUMULATIVE THROUGH 1980

	First year of production	Production (In thousands of cubic feet)			
		1978	1979	1980	Cumulative thru 1980[a]
Mississippian					
Stray-Marshall	1931	41,128	33,952	21,313	215,404,865
Berea	1936	30,132	8,093	28,849	11,280,790
Devonian					
Antrim Shale	1947	150,434	139,212	375,883	2,358,606
Traverse	1934	0	64,429	620,738	9,678,291
Dundee-Reed City	1929	23,184	114,563	15,118	49,530,009
Detroit River	1946	1,011,884	1,725,677	1,885,846	67,085,248
Silurian					
Salina-Niagaran	1929	141,876,290	150,971,034	149,445,361	1,127,974,898
Ordovician					
Trenton-Black River	1954	7,402,205	6,673,294	5,944,814	209,527,784
Total Mcf, All formations		150,535,257	157,730,254	158,337,922	1,692,848,511

SOURCE: Michigan Department of Natural Resource, Michigan's Oil and Gas Fields, 1978, 1979, and 1980, Annual Statistical Summary 34 (Lansing: 1978, 1979, and 1980, Tables 9 and 11.

a. In an attempt to obtain national uniformity of data, all annual and cumulative gas production figures for Michigan were converted to a standard base pressure for volumetric measurement of 14.73 pounds per square inch in 1978. This conversion and subsequent adjustment of gas production figures resulted in slight changes in cumulative production volumes in those fields which had been measured at varying pressure bases in prior years.

TABLE XIX-21. MICHIGAN NATURAL GAS - STORAGE HISTORY, 1941-1981

As of year end	Storage fields activated	County	Incremental capacity (Bcf)	Total cyclic capacity (Bcf)
1941	Austin (MW)	Mecosta	13	13
1947	Reed City (MW)	Osceola & Lake	18	31
1947	Cranberry Lake (MGS)	Clare & Missaukee	13	44
1947	Winterfield (MGS)	Clare & Osceola	33.2	77.2
1948	Goodwell (MW)	Newaygo	19	96.2
1950	Lincoln-Freeman (MW)	Clare	21	117.2
1950	Winfield (MW)	Montcalm	12	129.2
1951	Orient (MW)	Clare & Osceola	6	135.2
1951	Norwich (MW)	Newaygo	5	140.2
1953	Taggert (MC)	Mecosta & Montcalm	54	194.2
1956	Coldwater (MW)	Isabella	8	202.2
1957	Croton (MW)	Newaygo	4	206.2
1958	New Haven (MC)	Gratiot & Montcalm	12	218.2
1960	North Hamilton (MW)	Clare	8	226.2
1960	Overisel (CP)	Allegan	24	250.2
1961	Ira (CP)	St. Clair	4	254.2
1961	Marysville (SM)	St. Clair	0.4	254.6
1962	Riverside (CP)	Missaukee	2.3	256.9
1962	Howell (P.E.)	Livingston	20	276.9
1963	Loreed (MW)	Osceola & Lake	45	321.9
1963	Salem (CP)	Allegan	10	331.9
1965	Belle River (MC)	St. Clair	44	375.9
1965	Lennox (CP)	Macomb	1.5	377.4
1966	Ray (CP)	Macomb	46	423.4
1968	Northville (CP)	Wayne & Washtenaw	11.8	435.2
1971	Partello (MGU)	Calhoun	2.0	437.2
1971	Puttygut (CP)	St. Clair	11	448.2
1972	Four Corners (CP)	St. Clair		
1972	Swan Creeks (CP)	St. Clair	2.8	451.0
1972	Columbus (MC)	St. Clair	18	469.0
1973	West Columbus (MC)	St. Clair	20	489.0
1974	Marysville (SM)	St. Clair	3.5	492.5
1975	Muttonsville (MW)	Macomb	14	506.5
1975	Anderson (MGU)	Calhoun	1	507.5
1975	Campbell (MGU)	Calhoun	1	508.5
1975	Calhoun County (BC)	Calhoun	0.2	525.6
1976	Hessen (CP)	St. Clair	13.6	522.1
1977	Marsac Creek (CP)	St. Clair	3.3	525.4
1978	Capac (MW)	St. Clair	30.0	555.6
1980	Cold Springs 12 (ANR)	Kalkaska	25.0	580.6

TABLE XIX-21. MICHIGAN NATURAL GAS - STORAGE HISTORY, 1941-1981, (cont.)

As of year end	Storage fields activated	County	Incremental capacity (Bcf)	Total cyclic capacity (Bcf)
1980	Rapid River 35 (ANR)	Kalkaska	15.0	595.6
1980	Chester 15 (MW)	Otsego	16.8	612.4
1981	Charlton 1 (MW)*	Otsego	16.3	628.7
1981	Cold Springs 31 (ANR)*	Kalkaska	4.9	633.6
1981	East Kalkaska 1 (ANR)*	Kalkaska	1.0	634.6
1981	Excelsior 6 (ANR)*	Kalkaska	4.9	639.5
1981	Collin Field (SM)*	St. Clair	2.0	641.5

SOURCE: Michigan Public Service Commission as reported in Michigan Department of Commerce, Energy Administration, Michigan Energy Data Book (Lansing: 1980), pp. 44 and 45.

Key: MW = Michigan Wisconsin Pipeline Company
MC = Michigan Consolidated Gas Company
MGS = Michigan Gas Storage Company
MGU = Michigan Gas Utilities Company
CP = Consumers Power Company
SM = Southeastern Michigan Gas Company
P.E.= Panhandle Eastern Pipeline Company
BC = Battle Creek Gas Company
ANR = ANR Storage Company

*: Proposed

TABLE XIX-22. DISTRIBUTION OF BITUMINOUS COAL AND LIGNITE FOR CONSUMPTION IN MICHIGAN, BY TYPE OF CUSTOMER: 1946 AND 1957-1981

(Thousand short tons)

Year	Electric utilities	Coke and gas plants	Retail delears	All others	Total
1946	--	3,040[a]	8,460	13,709[b]	25,209
1957	9,838	4,877	3,368	8,172	26,255
1958	8,502	3,082	2,858	7,956	22,384
1959	10,675	4,489	2,892	9,175	27,231
1960	10,191	4,517	2,458	7,910	25,076
1961	9,997	4,121	2,514	7,695	24,327
1962	12,276	4,249	2,358	8,372	27,255
1963	13,582	4,813	2,154	9,339	29,888
1964	14,690	5,309	1,771	9,166	30,936
1965	16,966	5,338	2,032	9,075	33,411
1966	18,464	5,012	1,831	9,463	34,770
1967	19,605	4,591	1,485	9,278	34,959
1968	20,832	4,914	1,474	9,567	36,787
1969	21,432	4,823	1,166	8,253	35,674
1970	23,244	4,942	1,008	7,439	36,633
1971	19,416	4,861	817	7,531	32,625
1972	21,424	5,378	649	7,634	35,085
1973	20,294	4,876	561	5,954	31,685
1974	20,623	3,835	351	4,441	29,250
1975	21,802	5,343	262	3,883	31,290
1976	21,197	4,493	248	3,867	29,805
1977[c]	21,165	4,029	160	3,447	28,801
1978[c]	21,192	2,928	73	3,415	27,608
1979[c]	24,047	4,026	35	4,276	32,385
1980	23,003	3,339[d]	308[e]	4,554	31,206
1981	23,122	3,225[d]	182[e]	3,624	30,153

SOURCE: Bureau of Mines, *Minerals Yearbook--Metals, Minerals, and Fuels*, 1947 through 1975 (Washington, D.C.: annually), Crude Petroleum and Products section, Tables 16 and 24 (1975 data); Bureau of Mines, special (1976-1979 data); thereafter, U.S. Department of Energy, special release.

a. By product and water gas plants.
b. Industrial; includes electric utilities.
c. Prior to the fourth quarter of 1977, data collection was on a voluntary basis, with some estimating by the Bureau of Mines. Reporting now is mandatory. Since the third quarter of 1977, only actual company figures are tallied to develop state and national totals. The data for 1977 and 1978 are not strictly comparable with each other, therefore, nor with previous years' figures.
d. Coke plants only.
e. Residential and commercial.

TABLE XIX-23. TYPICAL ELECTRIC RATES FOR RESIDENTIAL SERVICES IN MICHIGAN CITIES OF 2,500 OR MORE INHABITANTS: 1 JANUARY 1982

Community	250[a] kwh	500[a] kwh	750[b] kwh	1000[b] kwh	2500[c] kwh
Alpena Power Co.	16.79	29.97	43.16	56.34	135.45
Bay City Electric Light Department	13.69	24.55	34.59	46.50	109.56
Charlevoix Municipal Utilities	14.23	26.45	38.68	50.90	122.25
Chelsea Electric and Water Department	13.21	25.42	34.84	47.05	120.31
Coldwater Board of Public Utilities	16.38	30.29	43.42	57.35	140.86
Consumers Power Co.	12.99	25.97	37.46	51.76	126.29
Detroit Edison Co.	14.31	28.63	38.65	58.37	136.60
Dowagiac Board of Electric Facilities	12.69	23.12	31.98	39.81	86.77
Eaton Rapids, City of	16.12	29.79	44.15	59.59	153.92
Edison Sault Electric Company	11.65	20.35	29.03	37.73	89.91
Escanaba	19.82	36.42	51.67	66.92	158.42
Gladstone, City of	21.23	37.29	41.95	58.01	149.38
Grand Haven Board of Light and Power	16.84	31.04	46.35	61.67	162.58
Hillsdale Board of Public Works	18.98	34.63	50.30	65.95	159.92
Holland Board of Public Works	15.50	28.50	37.65	50.65	128.65
Indiana and Michigan Electric Company	11.46	19.15	26.86	34.76	86.17
Lake Superior District Power Company	14.55	25.79	33.98	45.23	111.05
L'Anse, Village of	18.09	33.59	48.58	63.57	153.53
Lansing Board of Water & Light[a]	14.70	26.89	39.09	51.88	134.65
Lowell Light & Power	14.85	28.01	41.16	54.32	133.25
Marquette Board of Light and Power	16.83	30.09	43.35	56.61	121.62
Marshall City Water & Electric Works	17.67	32.80	47.92	63.05	153.81
Michigan Power Co.	13.59	24.17	34.77	45.35	108.87
Negaunee, City of	18.02	32.20	46.37	60.55	145.60

TABLE XIX-23. TYPICAL ELECTRIC RATES FOR RESIDENTIAL SERVICES IN MICHIGAN CITIES OF 2,500 OR MORE INHABITANTS: 1 JANURAY 1982 (cont.)

	250[a] kwh	500[a] kwh	750[b] kwh	1000[b] kwh	2500[c] kwh
Niles Board of Public Works	14.56	24.29	33.03	41.77	89.39
Norway Electric Light Department	9.60	17.10	22.85	30.35	74.60
Paw Paw, Village of	11.02	20.91	30.80	40.69	100.13
Petoskey Municipal Light Plant	13.03	23.91	34.89	45.68	110.97
Portland Electric Department	18.70	31.76	44.25	56.75	131.75
Saint Louis Light Plant	15.79	28.57	38.36	51.55	127.87
South Haven Board of Public Works	12.13	19.80	24.28	31.74	74.99
Sturgis, City of	14.38	25.64	35.70	44.96	100.51
Traverse City Power Department	16.51	30.27	42.44	56.97	138.15
Upper Peninsula Power Company	21.83	39.91	51.37	69.45	174.55
Wakefield, City of	14.47	27.44	40.40	53.37	131.18
Wisconsin Electric Power	17.31	30.88	40.44	54.00	135.38
Wisconsin Public Serv. Corporation	13.78	24.36	31.01	41.59	102.88
Wyandotte Department of Municipal Service[d]	16.66	31.46	46.26	61.06	149.86
Zeeland Board of Public Works	18.63	35.01	48.59	64.97	163.25

SOURCE: U.S. Department of Energy, Energy Data Report, Typical Electric Bills-1982 (Washington, D.C.: 1982), Table 11.

a. Lighting, Appliances, Refrigeration and Cooking.

b. Lighting, Appliances, Refrigeration, Cooking and Water

c. Lighting, Appliances, Refrigeration, Cooking, Water Heating and/or Space Heating.

d. Lamp replacement service included.

TABLE XIX-24. INSTALLED ELECTRIC GENERATING CAPACITY OF ELECTRIC UTILITIES AND INDUSTRIAL PLANTS IN MICHIGAN, BY TYPE OF PRIME MOVER: 31 DECEMBER 1967-1981

(In thousands of kilowatts)

	Electric utilities		Industrial	Nuclear	
Year	Fossil steam	Hydro	plants	power*	Total
1967	8,930	356	1,057	n.a.	10,343
1968	9,766	356	1,050	n.a.	11,173
1969	10,480	351	1,032	n.a.	11,862
1970	10,830	348	994	n.a.	12,171
1971	11,842	345	1,014	n.a.	13,201
1972	12,562	344	1,007	n.a.	13,913
1973	13,969	1,993[a]	1,023	n.a.	16,985
1974	16,605	2,322[a]	1,019	n.a.	19,946
1975	16,629	2,321[a]	1,009	n.a.	19,959
1976	13,281	2,321[a]	1,394	2,039	19,035
1977	13,867	2,322[a]	1,399	2,039	19,626
1978	14,104	2,322[a]	1,410	3,172	21,007
1979	14,994	2,322[a]	1,428	3,172	21,916
1980	15,764	2,322[a]	1,435	3,172	22,692
1981	15,700	2,322	1,452	3,172	22,647

SOURCE: Bureau of the Census, Statistical Abstract of the United States, 1967 through 1975 (Washington, D.C.: annually); thereafter U.S. Department of energy, Electrical Power Annual (Washington, D.C.: monthly).

a. Includes the pump storage facility at Ludington where water is pumped up into a reservoir at night and released to generate electricity to meet peak loan requirements during the day.

* Data not available prior to 1976.

TABLE XIX-25. PRODUCTION OF ELECTRIC ENERGY BY ELECTRIC UTILITIES BY HYDRO AND OTHER PLANTS IN MICHIGAN: 1947-1981

(Thousands of kilowatt-hours)

Year	Hydro	Total fuel[a]	Total
1947	1,515,260	10,286,151	11,801,411
1948	1,317,595	11,439,182	12,756,777
1949	1,369,281	11,828,945	13,198,226
1950	1,657,676	13,657,865	15,315,541
1951	1,887,163	14,748,717	16,635,880
1952	1,742,813	15,514,789	17,257,602
1953	1,703,471	18,030,717	19,734,188
1954	1,794,827	17,741,426	19,536,253
1955	1,570,501	20,794,422	22,364,923
1956	1,657,054	21,977,346	23,634,400
1957	1,552,989	23,279,559	24,832,548
1958	1,476,445	22,566,773	24,043,218
1959	1,727,293	24,829,808	26,557,101
1960	1,817,341	25,855,001	27,672,342
1961	1,635,689	26,676,370	28,312,059
1962	1,574,044	30,500,999	32,075,043
1963	1,246,431	33,705,179	34,951,610
1964	1,415,103	36,580,829	37,995,932
1965	1,667,243	40,109,476	41,776,719
1966	1,670,859	43,761,330	45,432,189
1967	1,799,231	45,833,170	47,632,901
1968	1,739,363	50,362,597	52,101,960
1969	1,732,982	53,551,867	55,284,849
1970	1,580,343	54,700,398	56,280,741
1971	1,620,622	57,459,327	59,079,949
1972	1,643,545	59,454,562	61,098,107
1973	889,714	61,826,056	62,715,770
1974	1,050,699	60,401,284	61,451,983
1975	989,369	67,168,344	68,157,713
1976	926,133	68,326,851	69,252,984
1977	804,363	67,953,514	68,757,517
1978	949,912	73,584,427	74,534,339
1979	1,184,940	77,044,618	78,229,558
1980	1,083,328	73,766,222	74,849,550
1981	1,123,665	74,471,334	75,594,999

SOURCE: Federal Power Commission, special release; and U.S. Department of Energy, Electric Power Annual, (Washington, D.C.: annual) 1982, Tables 23 and 32.

[a] Steam and turbine.

TABLE XIX-26. PRODUCTION OF ELECTRIC ENERGY BY ELECTRIC UTILITIES BY STEAM IN MICHIGAN, BY KIND OF FUEL: 1962-1981

(Thousands of kilowatt-hours)

Year	Coal	Oil[a]	Natural gas	Nuclear
1962	30,019,132	241,356	240,482	29
1963	33,171,041	224,283	187,504	122,351
1964	35,980,122	186,144	222,085	192,478
1965	39,472,433	194,419	262,017	180,607
1966	42,880,297	305,813	232,561	342,659
1967	44,495,793	460,034	375,330	502,013
1968	48,938,596	480,930	517,470	425,601
1969	51,346,646	603,897	1,200,274	401,050
1970	46,578,776	2,553,271	5,193,659	374,692
1971	47,187,538	4,277,233	5,607,036	387,520
1972	47,953,045	4,716,918	4,659,418	2,125,181
1973	48,752,756	6,326,295	3,767,128	2,979,877
1974	48,393,892	7,433,244	4,158,308	415,840
1975	48,180,133	8,336,771	3,475,317	7,176,123
1976	46,813,611	7,752,445	1,660,529	9,900,551
1977	47,624,077	7,635,801	715,910	10,231,444
1978	47,613,638	10,363,304	714,744	13,104,159
1979	51,363,534	8,110,368	1,203,678	15,139,195
1980	50,450,279	5,438,411	954,712	15,890,986
1981	53,182,672	3,028,311	648,083	17,066,081

SOURCE: Federal Power Commission, special release; and U.S. Department of Energy, *Electric Power Annual* (Washington, D.C.: annual), 1982, Tables 24, 25, 26, and 31.

a. Includes distillate and residual and crude burned as residual, until 1975.

TABLE XIX-27. FOSSIL FUELS CONSUMED IN THE PRODUCTION OF ELECTRIC ENERGY BY ELECTRIC UTILITIES IN MICHIGAN, BY KIND OF FUEL: 1952-1981

Year	Coal[a]	Oil[b]	Gas[c]
1952	7,414,756	474,303	285,940
1953	8,418,570	496,156	366,404
1954	7,946,133	459,799	425,562
1955	9,251,115	537,571	332,415
1956	9,631,375	567,966	413,409
1957	10,035,173	556,013	591,108
1958	9,231,328	528,549	1,073,800
1959	10,112,980	475,034	1,642,129
1960	10,299,737	439,867	5,208,898
1961	10,282,542	459,840	8,178,632
1962	12,003,368	451,740	2,601,428
1963	13,267,743	423,334	2,032,471
1964	14,441,995	369,453	2,384,103
1965	16,122,593	383,828	2,988,767
1966	18,148,464	733,126	2,494,984
1967	19,014,993	1,136,946	4,718,078
1968	20,820,484	1,175,483	6,842,091
1969	21,952,162	1,436,248	15,495,248
1970	20,123,939	5,479,030	64,406,787
1971	20,507,741	8,746,639	69,808,590
1972	20,420,769	9,641,758	58,899,385
1973	20,507,873	12,040,590	48,016,628
1974	20,755,361	13,713,367	56,172,035
1975	20,913,429	15,674,055	56,710,314
1976	20,369,131	15,889,145	53,510,229
1977	21,027,858	15,758,064	32,151,432
1978	21,494,695	20,423,409	36,383,647
1979	23,133,536	15,609,570	37,859,808
1980	22,150,263	10,400,333	26,368,103
1981	23,407,388	6,031,144	19,230,256

SOURCE: Federal Power Commission, special release; and U.S. Department of Energy, Electric Power Annual, (Washington, D.C.: annual), 1982, Tables 61, 66, and 67.

a. Short tons.

b. Barrels of 42 gallons. Includes distillate and residual and crude burned as residual.

c. Thousands of cubic feet.

TABLE XIX-28. SALES OF ELECTRIC ENERGY TO INDUSTRIAL CONSUMERS IN MICHIGAN AND THE UNITED STATES, BY MONTH: 1973-1982

(Millions of killowatt-hours)

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1973	2,568	2,734	2,659	2,749	2,748	2,784	2,888	2,774	2,907	2,853	2,754	2,495
1974	2,364	2,418	2,349	2,467	2,499	2,632	2,553	2,669	2,709	2,744	2,631	2,227
1975	2,184	2,272	2,208	2,196	2,305	2,379	2,395	2,570	2,622	2,637	2,560	2,472
1976	2,498	2,641	2,750	2,784	2,748	2,881	2,847	2,827	2,883	2,768	2,827	2,745
1977	2,622	2,760	2,846	2,814	2,956	3,002	2,869	3,020	3,002	2,761	2,930	2,761
1978	2,756	2,754	2,773	2,966	2,970	3,063	2,971	3,094	3,118	3,190	3,055	2,899
1979	3,031	2,995	3,162	2,903	3,073	3,115	2,987	2,900	2,880	2,868	2,712	2,516
1980	2,544	2,693	2,713	2,605	2,277	2,242	2,414	2,520	2,598	2,762	2,645	2,643
1981	2,355	2,621	2,704	2,644	2,648	2,800	2,729	2,721	2,576	2,493	2,444	2,131
1982	2,104	2,170	2,445	2,348	2,415	2,468	2,490	2,446	2,333	2,251	2,099	2,031
						United States						
1973	55,274	54,591	55,866	55,937	56,838	57,368	57,152	58,865	59,178	60,514	58,433	56,070
1974	55,754	54,978	55,999	56,497	57,386	58,077	57,899	59,803	60,366	60,053	57,361	53,878
1975	54,280	54,328	54,437	52,526	54,767	55,841	55,525	57,868	58,619	58,815	58,223	57,433
1976	57,463	58,228	60,516	59,967	61,271	62,920	62,657	64,184	64,653	64,208	63,106	62,842
1977	61,481	60,439	63,294	63,278	65,418	66,064	64,622	66,300	66,362	66,295	64,833	63,906
1978	64,300	60,817	61,524	63,129	66,746	69,098	67,397	69,402	70,067	71,259	69,702	67,767
1979	67,956	66,847	68,770	68,777	70,421	70,968	69,938	71,058	70,075	71,444	69,787	67,283
1980	67,532	68,508	69,058	67,908	67,325	66,739	65,531	67,377	69,570	69,413	67,613	68,517
1981	67,076	67,411	68,590	68,138	68,714	71,641	71,712	72,010	71,011	69,154	66,139	64,130
1982	62,939	62,778	64,496	62,723	62,480	63,684	62,617	63,306	59,980	60,830	60,651	58,464

SOURCE: Energy Information Administration, U.S. Department of Energy, *Energy Data Report* (Washington, D.C.: monthly). After October 1981, *Electric Power Monthly* (Washington, D.C.: monthly).

TABLE XIX-29. SALES OF ELECTRIC ENERGY TO RESIDENTIAL CONSUMERS IN MICHIGAN AND THE UNITED STATES, BY MONTH: 1973-1982

(Millions of killowatt-hours)

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1973	1,886	1,865	1,751	1,625	1,504	1,515	1,596	1,716	1,810	1,562	1,649	1,767
1974	1,977	1,837	1,734	1,631	1,538	1,523	1,645	1,745	1,687	1,558	1,589	1,888
1975	2,056	1,739	1,797	1,741	1,512	1,559	1,796	1,863	1,719	1,608	1,562	1,901
1976	2,225	1,801	1,827	1,612	1,578	1,636	1,767	1,792	1,666	1,618	1,700	2,100
1977	2,329	1,886	1,856	1,631	1,574	1,632	1,814	1,905	1,721	1,240	1,630	2,058
1978	2,296	1,874	1,908	1,708	1,602	1,657	1,740	1,828	1,821	1,758	1,702	1,964
1979	2,326	1,932	1,924	1,710	1,644	1,644	1,769	1,883	1,735	1,624	1,726	1,969
1980	2,239	1,847	1,946	1,782	1,609	1,596	1,858	2,030	1,940	1,726	1,745	2,008
1981	2,350	1,762	1,815	1,630	1,596	1,594	1,925	1,967	1,728	1,651	1,634	1,978
1982	2,308	1,879	1,813	1,709	1,510	1,563	1,829	1,836	1,647	1,592	1,635	1,956
						United States						
1973	52,840	49,601	46,315	41,821	39,825	44,967	54,123	56,742	56,210	47,207	43,181	46,399
1974	52,846	47,832	46,154	43,294	41,215	46,596	53,435	56,558	53,252	44,177	42,773	50,368
1975	55,546	50,219	47,968	46,883	41,077	45,766	53,972	57,291	54,362	43,024	42,054	50,213
1976	60,126	54,264	47,060	43,563	41,036	44,157	53,671	57,255	53,460	44,762	46,675	56,750
1977	65,332	61,424	50,859	44,414	41,568	48,419	60,969	62,821	57,248	48,741	44,959	54,919
1978	65,547	63,936	58,194	46,928	43,637	50,511	61,327	63,434	61,584	51,108	47,220	57,058
1979	69,912	67,470	58,806	49,647	45,378	49,109	58,064	64,168	59,251	49,430	49,480	58,437
1980	65,841	64,514	60,497	51,749	45,699	52,267	68,611	74,893	67,969	54,014	50,539	60,775
1981	74,087	66,359	57,660	50,914	48,348	56,165	68,990	70,299	60,173	51,989	50,754	60,826
1982	76,264	69,128	60,498	54,918	49,092	54,083	65,704	69,906	63,053	52,638	52,136	62,102

SOURCE: Energy Information Administration, U.S. Department of Energy, Energy Data Report (Washington, D.C.: monthly) and after October 1981, Electric Power Monthly (Washington, D.C.: monthly).

TABLE XIX-30. SALES OF ELECTRIC ENERGY TO COMMERCIAL CONSUMERS IN MICHIGAN AND THE UNITED STATES, BY MONTH: 1973-1982

(Millions of kilowatt-hours)

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1973	1,091	1,083	1,087	1,015	1,021	1,081	1,145	1,200	1,208	1,091	1,100	1,081
1974	1,081	1,057	1,036	997	984	1,041	1,114	1,178	1,134	1,056	1,053	1,104
1975	1,161	1,033	1,075	1,044	998	1,108	1,220	1,231	1,098	1,069	1,050	1,130
1976	1,208	1,079	1,105	1,046	1,076	1,130	1,264	1,210	1,207	1,113	1,086	1,252
1977	1,313	1,124	1,167	1,087	1,142	1,203	1,282	1,303	1,188	743	1,101	1,248
1978	1,300	1,147	1,176	1,098	1,084	1,217	1,249	1,338	1,290	1,215	1,138	1,243
1979	1,370	1,206	1,269	1,165	1,179	1,253	1,293	1,352	1,223	1,227	1,178	1,271
1980	1,343	1,214	1,282	1,213	1,159	1,202	1,324	1,425	1,293	1,237	1,184	1,282
1981	1,346	1,125	1,212	1,118	1,123	1,205	1,384	1,378	1,290	1,161	1,153	1,282
1982	1,308	1,170	1,202	1,139	1,121	1,182	1,291	1,315	1,203	1,159	1,121	1,232
						United States						
1973	31,182	30,445	30,100	29,038	30,060	33,194	36,147	36,820	36,711	33,289	31.453	29,829
1974	30,608	29,542	29,310	28,986	29,876	32,800	35,229	36,414	35,830	32,112	30,968	31,757
1975	33,026	31,459	31,194	31,335	30,926	34,665	37,631	38,576	37,325	32,817	31,608	32,596
1976	34,955	33,583	32,273	31,813	32,347	35,130	39,026	39,517	38,503	34,388	33,372	35,579
1977	37,598	36,105	34,249	33,180	34,291	37,658	41,863	42,483	41,062	36,655	34,075	35,714
1978	37,942	37,286	36,201	33,484	33,896	38,624	42,839	43,694	42,935	38,354	35,864	37,650
1979	40,200	39,670	37,938	35,731	36,259	39,174	42,528	43,915	42,416	38,750	36,656	37,952
1980	39,578	39,528	38,762	36,453	36,110	40,129	45,525	47,679	46,028	40,479	37,954	39,846
1981	43,229	41,345	39,541	37,910	39,331	44,244	48,989	49,003	45,877	42,183	38,746	40,782
1982	44,947	43,459	41,710	40,036	40,021	44,206	48,211	49,720	48,068	60,830	40,572	42,584

SOURCE: Energy Information Administration, U.S. Department of Energy, Energy Data Report (Washington, D.C.: monthly). After October 1981, Electric Power Monthly (Washington, D.C.: monthly).

TABLE XIX-31. SALES OF ELECTRIC ENERGY TO ALL CONSUMERS IN MICHIGAN AND THE UNITED STATES BY MONTH: 1973-1982

(Millions of killowatt-hours)

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						Michigan						
1973	5,736	5,879	5,681	5,580	5,456	5,560	5,839	5,910	6,152	5,708	5,687	5,530
1974	5,610	5,521	5,308	5,290	5,216	5,379	5,541	5,833	5,747	5,578	5,479	5,364
1975	5,613	5,152	5,188	5,189	4,914	5,145	5,521	5,780	5,550	5,432	5,291	5,634
1976	6,072	5,643	5,799	5,563	5,509	5,761	5,993	5,954	5,881	5,614	5,733	6,227
1977	6,400	5,892	5,992	5,647	5,780	5,955	6,089	6,352	6,040	4,799	5,791	6,224
1978	6,492	5,903	5,983	5,892	5,771	6,052	6,084	6,393	6,364	6,293	6,024	6,252
1979	6,878	6,266	6,490	5,904	6,019	6,156	6,181	6,267	5,974	5,856	5,752	5,898
1980	6,278	5,886	6,079	5,737	5,165	5,156	5,719	6,105	5,900	5,860	5,714	6,082
1981	6,256	5,689	5,921	5,575	5,536	5,774	6,169	6,234	5,736	5,498	5,369	5,536
1982	5,927	5,415	5,656	5,389	5,223	5,392	5,800	5,793	5,379	5,195	5,046	5,420
						United States						
1973	144,505	139,546	137,102	131,366	131,361	140,293	152,562	157,481	157,310	146,042	138,142	137,199
1974	144,203	137,060	136,157	133,387	133,162	142,113	151,528	157,844	154,431	141,135	136,071	140,978
1975	148,097	141,550	139,237	135,481	132,174	141,657	152,771	159,444	156,284	140,400	137,861	146,149
1976	158,903	151,949	145,839	140,728	140,123	147,550	161,224	166,792	162,750	148,778	148,758	160,798
1977	170,685	163,738	154,560	146,297	146,890	157,741	173,384	176,896	170,619	157,673	149,754	160,606
1978	174,372	168,291	161,950	148,883	149,914	163,981	177,607	182,666	181,015	166,722	159,125	168,709
1979	184,757	180,719	171,515	159,743	157,688	165,256	176,495	185,519	178,220	165,721	162,096	169,815
1980	179,585	178,720	174,373	161,703	154,851	164,872	185,882	196,205	190,139	170,080	162,174	175,607
1981	91,949	182,207	172,826	163,525	163,173	178,827	197,814	198,459	183,620	171,350	162,129	172,375
1982	192,079	182,805	173,959	164,512	158,569	168,739	183,567	189,740	178,296	163,416	160,479	170,278

SOURCE: Energy Information Administration, U.S. Department of Energy, Energy Data Report (Washington, D.C.: monthly). After October 1981, Electric Power Monthly, (Washington, D.C.: monthly).

TABLE XIX-32. MICHIGAN ELECTRIC UTILITY STATISTICS: 1979-1981

Company	Year	Number of customers	Sales to ultimate consumers ($000)	Sales to ultimate consumers Mwh	Peak demand for year (Mw)	Total assets[a] ($000)
			Privately owned utilities			
Alpena Power Company	1979	14,169	10,170	257,762	57	9,015
	1980	14,445	11,397	250,085	53	9,426
	1981	14,726	13,826	257,972	54	9,426
Consumers Power Company	1979	1,297,117	1,088,450	25,939,501	4,479	4,670,780[c]
	1980	1,318,727	1,226,132	24,718,039	4,540	5,101,637[c]
	1981	1,332,932	1,341,770	24,800,717	4,703	5,639,850[c]
Detroit Edison Company	1979	1,741,580	1,560,249	35,327,243	6,829	4,550,859
	1980	1,762,308	1,670,654	32,984,275	6,703	4,987,424
	1981	1,765,709	1,897,662	32,822,442	7,171	5,305,033
Edison Sault Electric Co.	1979	15,240	9,411	351,410	82	17,856
	1980	15,345	10,267	352,833	81	18,328
	1981	15,523	11,443	343,166	80	20,313
Indiana & Michigan Electric[d]	1979	74,193	54,265	1,710,824	d	d
	1980	74,396	55,852	1,603,611	d	d
	1981	74,488	56,725	1,600,436	d	
Lake Superior Dist.Pwr.[b]	1979	10,426	4,668	114,227	b	b
	1980	10,943	5,397	116,178	d	d
	1981	10,581	5,259	106,364	d	
Michigan Power Company	1979	28,210	22,805	568,984	115	51,530
	1980	28,779	22,997	583,448	122	55,612
	1981	29,295	25,122	614,971	125	57,661
Upper Peninsula Power Co.	1979	58,904	31,803	641,566	140	60,418
	1980	59,172	33,194	620,187	138	61,672
	1981	59,383	40,232	618,439	140	62,185
Wisconsin Elec.Power Co.[d]	1979	21,784	17,889	530,956	d	d
	1980	22,010	19,406	517,517		
	1981	22,230	16,358	280,966	d	
Wisconsin Public Service Corporation[d]	1979	7,558	4,920	152,042	d	d
	1980	7,613	5,718	151,424		
	1981	7,737	6,127	161,819	d	d

TABLE XIX-32. MICHIGAN ELECTRIC UTILITY STATISTICS: 1979-1981 (cont.)

Company	Year	Number of customers	Sales to ultimate consumers ($000)	Sales to ultimate consumers Mwh	Peak demand for year (Mw)	Total assets[a] ($000)
Rural electric cooperative[e]						
Alger-Delta Co-op	1979	6,627	2,371	38,323	9	4,479
	1980	6,733	2,531	37,161	9	4,702
	1981	6,843	2,857	37,490	9	5,043
Cherryland R.E.C.	1979	14,787	6,613	113,192	25	9,624
	1980	15,389	7,872	117,288	26	10,592
	1981	15,860	9,063	119,473	26	11,152
Cloverland Elec. Co-op	1979	11,758	4,008	105,923	20	11,991
	1980	11,841	4,610	107,509	n.a.	12,898
	1981	11,918	5,227	104,089	n.a.	13,386
Fruit Belt Elec. Co-op	1979	18,632	9,652	231,003	61	13,184
	1980	18,891	10,160	220,335	51	13,774
	1981	19,122	11,340	220,456	53	14,326
O & A Electric Co-op	1979	20,293	7,865	122,368	29	10,650
	1980	20,706	8,557	126,444	31	11,464
	1981	21,036	10,098	129,094	n.a.	11,655
Oceana Electric Co-op	1979	7,600	3,009	51,162	12	2,699
	1980	7,841	3,259	50,650	12	2,820
	1981	7,925	4,020	51,597	n.a.	3,023
Ontonagon County REA	1979	3,137	1,086	17,495	4	1,973
	1980	3,210	1,265	16,786	n.a.	2,153
	1981	3,250	1,445	17,028	n.a.	2,179
Presque Isle	1979	22,193	7,906	118,302	28	13,928
	1980	22,533	8,469	117,504	28	14,483
	1981	22,676	8,954	118,575	27	14,953
Southeastern Mich. REA	1979	3,500	1,954	35,242	8	3,212
	1980	3,544	2,234	34,885	n.a.	3,345
	1981	3,567	2,459	34,189	8	3,507
Thumb Electric Co-op	1979	8,916	5,000	84,226	22	9,431
	1980	9,056	5,493	83,914	20	9,673
	1981	9,122	6,063	83,949	21	10,128
Top O'Michigan REA	1979	31,243	13,044	207,689	50	22,636
	1980	31,816	14,259	212,655	n.a.	23,527
	1981	32,438	16,602	223,743	53	24,578
Tri-county Electric Co-op	1979	15,315	8,037	131,867	30	8,361
	1980	15,603	8,616	132,270	31	8,974
	1981	15,751	10,342	132,608	30	n.a.
Western Mich. Electric Co-op	1979	9,073	2,701	38,732	11	4,124
	1980	9,204	2,861	39,544	11	4,337
	1981	9,377	3,372	39,179	10	4,460

SOURCE: Michigan Public Service Commission, special release.

a. Net utility plant.

b. Main system only. Does not include Pontiac systems.

c. Includes assets in natural gas system.

d. These utilities operate in more than one state, and the peak demand and total assets for Michigan are not given.

e. Excludes data for Bayfield Electric Co-op of Wisconsin. Bayfield also serves Iron River, Michigan. Michigan co-ops are located, respectively in Alger, Delta, Grand Traverse, Chippewa, Cass, Allegan, Oceana, Ontonagon, Presque Isle, Lenawee, Huron, Charlevoix, Ingham, and Mason counties.

TABLE XIX-33. NUMBER OF NATURAL GAS DISTRIBUTION UTILITY CUSTOMERS IN MICHIGAN, BY CLASS OF SERVICE: 1967-1981

(In thousands)

Year	Residential	Commercial	Industrial	Other	Total
1967	1,707.1	143.9	9.3	(L)	1,860.3
1968	1,758.1	148.6	9.7	(L)	1,916.4
1969	1,810.3	153.7	9.9	(L)	1,973.9
1970	1,850.9	157.2	10.4	(L)	2,018.5
1971	1,907.0	161.5	10.0	(L)	2,079.2
1972	1,946.7	168.7	10.6	(L)	2,126.0
1973	1,984.4	174.6	10.9	(L)	2,169.9
1974	2,023.3	178.1	10.8	(L)	2,212.2
1975	2,048.7	175.4	10.4	(L)	2,234.5
1976	2,069.7	165.3	9.4	(L)	2,244.4
1977	2,100.7	159.3	9.0	(L)	2,269.1
1978	2,145.1	159.4	9.2	(L)	2,313.6
1979	2,206.3	158.0	9.4	(L)	2,373.7
1980	2,270.2	163.5	9.6	(L)	2,443.3
1981	2,311.2	163.5	9.7	(L)	2,484.4

SOURCE: American Gas Association, Gas Facts, (Arlington, Va.: annually).

(L): Less than 50 customers.

TABLE XIX-34. TOTAL GAS REVENUES OF NATURAL GAS DISTRIBUTION UTILITIES IN MICHIGAN, BY CLASS OF SERVICE: 1967-1981

(In millions of dollars)

Year	Residential	Commercial	Industrial	Other	Total
1967	298	88	119	(L)	505
1968	308	94	128	(L)	531
1969	328	104	156	3	591
1970	350	115	178	8	651
1971	362	129	205	7	703
1972	404	158	231	6	799
1973	394	169	245	5	813
1974	480	228	327	8	1,044
1975	550	303	404	12	1,269
1976	690	401	519	2	1,612
1977	784	423	530	8	1,746
1978	869	448	633	(L)	1,950
1979	1,023	488	725	(L)	2,236
1980	1,237	600	765	1	2,603
1981	1,391	662	869	(L)	2,921

SOURCE: American Gas Association, Gas Facts, (Arlington, Va.: annually).

(L): Less than $500,000.

TABLE XIX-35. NUMBER OF NATURAL GAS CUSTOMERS OF MICHIGAN UTILITIES: 1979-1981 AVERAGES

Utility		Residential		Commercial		Industrial total[a]
		Nonheat	Heat	Nonheat	Heat	
Battle Creek Gas Company	1979	3,723	23,330	244	1,872	41
	1980	2,869	24,961	241	1,908	41
	1981	1,963	26,465	244	1,962	41
Citizens Gas Fuel Company	1979	972	7,319	63	735	27
	1980	781	7,905	49	767	29
	1981	658	8,462	47	794	29
Consumers Power Company	1979	51,981	946,227	1,839	62,748	6,923
	1980	41,750	997,319	1,877	66,849	7,125
	1981	33,070	1,036,887	1,844	66,410	7,209
Lake Superior District Power	1979	59	2,770	35	356	8
	1980	114	3,088	31	391	8
	1981	108	3,337	34	407	8
Mich. Consolidated Gas Company	1979	58,458	904,944	5,881	64,311	1,175
	1980	53,103	921,904	5,692	65,067	1,193
	1981	48,743	928,777	5,645	64,815	1,222
Michigan Gas Utilities Co.	1979	4,224	84,630	421	7,692	608
	1980	3,478	89,746	404	8,005	610
	1981	2,984	92,632	373	8,263	584
Michigan Power Company	1979	1,402	54,405	248	6,159	417
	1980	1,050	57,751	240	6,430	412
	1981	867	59,748	239	6,596	415
Peninsular Gas Company	1979	281	2,326	17	246	1
	1980	270	2,317	15	243	1
	1981	216	2,444	14	305	1
Southeastern Mich. Gas Company	1979	1,568	53,580	170	4,612	90
	1980	1,161	56,434	144	4,865	93
	1981	966	58,632	136	5,127	93
Wisconsin Public Service Co.	1979	441	3,624	30	254	85
	1980	378	3,798	25	267	78
	1981	344	3,913	21	275	77
TOTAL	1979	123,109	2,083,155	8,948	148,985	9,375
	1980	104,954	2,165,223	8,718	154,792	9,590
	1981	89,919	2,221,297	8,597	154,954	9,679

SOURCE: Michigan Public Service Commission, special release.

NOTE: Figures exclude interdepartmental customers, public authorities, and other gas utilities.
a. Includes interruptible customers.

TABLE XIX-36. VOLUME OF NATURAL GAS SALES FOR CONSUMPTION BY MICHIGAN UTILITIES: 1979-1981

(Thousands of cubic feet)

Utility		Residential		Commercial		Industrial
		Nonheat	Heat	Nonheat	Heat	total[a]
Battle Creek Gas Company	1979	136,283	3,778,973	138,258	1,940,565	4,491,452
	1980	113,380	3,771,389	122,194	1,989,147	6,288,666
	1981	80,166	3,892,497	123,087	1,902,520	6,039,889
Citizens Gas Fuel Company	1979	38,668	1,275,948	40,170	613,159	1,230,264
	1980	31,097	1,249,898	27,388	573,672	1,026,788
	1981	27,407	1,213,262	25,747	561,229	999,215
Consumers Power Company	1979	2,152,654	166,757,032	3,246,184	59,803,965	81,100,619
	1980	2,012,862	169,914,810	3,798,933	61,582,733	81,147,290
	1981	1,576,457	161,392,589	3,755,415	59,469,980	82,314,788
Lake Superior District Power	1979	2,171	416,428	95,695	241,358	124,400
	1980	6,560	448,963	96,585	235,760	137,094
	1981	5,346	440,416	83,746	244,912	114,329
Michigan Consolidated Gas Company	1979	3,009,338	176,026,561	6,018,945	98,820,254	158,513,639
	1980	2,831,738	172,832,541	6,063,341	95,551,166	115,198,311
	1981	2,652,393	159,929,881	5,784,523	86,306,003	109,586,928
Michigan Gas Utilities Co.	1979	168,903	13,769,044	202,315	5,686,602	15,791,774
	1980	146,861	13,752,360	206,757	5,846,693	14,725,210
	1981	113,543	12,618,763	217,149	5,410,654	14,628,998
Michigan Power Company	1979	50,666	8,309,131	114,734	5,309,711	10,039,639
	1980	41,819	8,259,369	106,363	5,081,223	9,407,664
	1981	29,348	7,753,535	138,169	4,847,397	9,290,066
Peninsular Gas Company	1979	5,672	424,124	2,259	244,973	14,646
	1980	6,140	383,955	1,940	223,846	13,738
	1981	4,506	366,593	1,968	206,423	12,224
Southeastern Mich. Gas Company	1979	54,893	8,652,039	121,516	4,014,550	2,518,905
	1980	39,882	8,810,227	127,727	3,873,205	2,576,010
	1981	24,228	8,190,762	137,432	3,741,025	2,956,976
Wisconsin Public Service Co.	1979	119,466	5,645,639	113,081	883,260	5,322,391
	1980	124,792	5,444,273	149,009	886,373	3,968,432
	1981	104,225	5,129,206	34,321	889,513	4,295,113
TOTAL	1979	5,738,714	385,054,919	10,093,157	177,558,397	279,147,729
	1980	5,355,131	384,867,785	10,100,237	175,843,818	234,489,203
	1981	4,617,619	360,927,504	10,301,557	163,579,656	230,238,526

SOURCE: Michigan Public Service Commission, special release.

NOTE: Figures exclude interdepartmental sales, sales to public authorities, and sales to other gas utilities for resale.

a. Includes interruptible.

TABLE XIX-37. TYPE OF FUEL USED IN HOUSEHOLDS IN MICHIGAN AND THE UNITED STATES: CENSUS 1980

Category	Michigan	United States
Occupied housing units	3,195,213	80,389,673
House heating fuel:		
Utility gas	2,445,495	42,876,081
Bottled, tank, or LP gas	111,114	4,417,493
Electricity	160,349	14,755,091
Fuel oil, kerosene, etc.	408,749	14,586,618
Coal or coke	5,032	508,330
Wood	54,696	2,570,419
Other fuel	6,210	137,454
No fuel used	3,568	538,187
Water heating fuel:		
Utility gas	2,225,716	42,266,839
Bottled, tank, or LP gas	137,460	3,935,431
Electricity	783,998	26,790,773
Fuel oil, kerosene, etc.	30,345	6,430,613
Other	9,559	340,389
No fuel used	8,135	625,628
Cooking fuel		
Utility gas	1,356,942	32,458,333
Bottled, tank, or LP gas	151,258	5,478,436
Electricity	1,681,174	41,904,346
Other	4,278	392,523
No fuel used	1,561	156,035

SOURCE: Bureau of the Census, 1980 Census of Population and Housing, Supplementary Report, Provisional Estimates of Social, Economic, and Housing Characteristics (Washington, D.C.: 1982), PHC80-S1-1, Table H3.

XX. WHOLESALE TRADE

The first postwar business census covered the year 1948, and subsequent censuses have been taken twice each decade. The current law authorizes the U.S. Bureau of the Census to canvass the nation's industrial and business establishments at five-year intervals in years ending in 2 and 7. These economic censuses cover construction industries, manufacturing, mining, retail trade, selected services, selected transportation, and wholesale trade.

Each establishment is classified on the basis of its major economic activity: selling merchandise to retailers; to industrial, commercial, institutional, farm or professional users; and to other wholesalers; or acting as agents or brokers in buying merchandise for or selling merchandise to persons or companies classified as wholesalers. Also included are wholesale liquor establishments operated by state or local governments. The basic tabulations in this chapter do not include data for central administrative offices, captive warehouses, and other units that service or are auxiliary to wholesale establishments within the same organization.

The 1977 Census of Wholesale Trade covers all such establishments that have a payroll. Firms with payrolls were sent questionnaires for each establishment operated.

Sales reported in the Census of Wholesale Trade do not include wholesale sales incidental to other kinds of business, such as retailing or services. They do include total receipts, including accruals, of wholesale establishments, even though some of these receipts were from servicing merchandise, carrying charges, delivering merchandise, retailing to households, and so forth. Refunds and allowances for merchandise returned are deducted. Sales and excise taxes are included, but nonoperating income (rental of real estate, interest or dividends on investments, and so forth) is not. Sales figures include sales so defined of all establishments in business at any time during the year, whereas the number of establishments in the Census of Retail Trade excludes those that have gone out of business during the year.

Payroll is as defined by the Internal Revenue Service. It includes wages and salaries, gratuities reported to the employer, commissions, bonuses, vacation and sick leave pay before deducting employee income taxes, Social Security taxes, union dues, and so forth.

Employment for the pay period including 12 March 1977 consists of paid employees of corporations and unincorporated businesses, including salaried officers and executives of corporations, but excluding proprietors and partners of unincorporated businesses. Employees on paid sick leave or holiday or on paid vacation also are included.

XX. WHOLESALE TRADE

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TABLE XX-1. AVERAGE WAGE AND SALARY EMPLOYMENT AND WEEKLY HOURS AND EARNINGS OF SALES WORKERS IN MICHIGAN AND THE UNITED STATES WHOLESALE TRADE ESTABLISHMENTS: 1956-1982

Year	Michigan[a]				United States			
	Employment (000)	Weekly		Hourly earnings[a]	Employment (000)	Weekly		Hourly earnings
		Hours	Earnings			Hours	Earnings	
1956	103.5	40.3	85.72	2.13	3,018	40.5	78.57	1.94
1957	101.9	40.6	88.18	2.17	3,028	40.3	81.41	2.02
1958	103.2	40.9	87.57	2.14	2,980	40.2	84.02	2.09
1959	99.9	40.5	97.16	2.40	3,082	40.6	88.51	2.18
1960	102.9	40.4	99.59	2.47	3,143	40.5	90.72	2.24
1961	101.7	40.7	102.56	2.52	3,133	40.5	93.56	2.31
1962	104.7	40.8	104.33	2.56	3,198	40.6	96.22	2.37
1963	105.9	41.7	109.34	2.62	3,248	40.6	99.47	2.45
1964	111.3	43.3	118.70	2.74	3,337	40.7	102.56	2.52
1965	119.8	43.3	127.43	2.94	3,466	40.8	106.49	2.61
1966	127.9	43.7	136.56	3.13	3,597	40.7	111.11	2.73
1967	133.1	45.8	147.29	3.22	3,689	40.3	116.06	2.88
1968	135.8	41.0	133.91	3.27	3,779	40.1	122.31	3.05
1969	137.4	40.6	155.01	3.82	3,907	40.2	129.85	3.23
1970	144.8	40.2	165.06	4.11	3,993	39.9	137.26	3.44
1971	144.8	39.7	173.73	4.38	4,001	39.5	144.18	3.65
1972	146.0	39.7	184.18	4.63	4,113	39.4	151.69	3.85
1973	150.6	40.1	197.13	4.92	4,277	39.3	160.34	4.08
1974	153.5	39.8	211.48	5.31	4,433	38.8	170.33	4.39
1975	146.9	41.2	253.63	6.16	4,415	38.7	183.05	4.73
1976	148.8	39.2	244.81	6.25	4,546	38.7	194.66	5.03
1977	151.8	39.1	257.55	6.59	4,708	38.8	209.13	5.39
1978	164.2	39.6	292.41	7.38	4,969	38.8	228.14	5.88
1979	170.4	38.6	304.13	7.88	5,204	38.8	247.93	6.39
1980	161.5	39.1	331.80	8.49	5,275	38.5	267.96	6.96
1981	157.9	39.8	371.78	9.33	5,359	38.6	292.20	7.57
1982	149.9	39.3	387.96	9.87	5,294	n.a.	n.a.	n.a.

SOURCE: Michigan Employment Security Commission Special release, and Bureau of Labor Statistics, Supplement to Employment and Earnings, Revised Establishment Data, (Washington, D.C.: 1982), p. 182.

a. Durable goods wholesalers only.

n.a.: not available

TABLE XX-2. SUMMARY STATISTICS FOR WHOLESALE TRADE ESTABLISHMENTS IN MICHIGAN AND THE UNITED STATES: 1947, 1954, 1958, 1963, 1967, 1972, AND 1977

	Establishments with payroll							
	Number[a] (000)		Sales ($1,000,000)		Annual payroll ($1,000,000)		Paid employees[b] (000)	
Year	Mich.	U.S.	Mich.	U.S.	Mich.	U.S.	Mich.	U.S.
1947[c]	8,485	243,366	6,721	188,689	319	7,991	88,725	2,382,789
1947	7,600	216,099	n.a.	n.a.	298	7,734	83,138	2,305,403
1954	9,441	250,322	10,087	233,976	479	10,868	99,793	2,590,361
1958	10,797	285,996	11,600	284,971	547	13,199	105,273	2,797,341
1963	11,635	308,177	14,055	358,386	711	18,101	113,845	3,088,706
1967	11,436	311,464	18,800	459,476	976	23,922	131,751	3,518,969
1972[d]	12,208	348,168	26,238	683,659	1,369	35,887	133,359	3,878,181
1972[e]	12,827	369,791	26,546	695,224	1,397	36,893	137,037	4,026,118
1977[e]	12,572	382,837	45,152	1,258,400	2,109	58,290	141,484	4,397,089

SOURCE: Bureau of the Census, 1977 Census of Wholesale Trade, Geographic Area Statistics, Advance Report (Washington, D.C.: 1980), WC77-A-23(A), Table 1; U.S. Census of Wholesale Trade, 1972, Area Series, Michigan (Washington, D.C.: 1974), WC72-A-23, Table I and 5; and Bureau of the Census, U.S. Census of Business, 1967, Wholesale Trade, Michigan (Washington, D.C.: 1969), BC67-WA24, Table 2, and similar census documents for 1963 (BC63-WA24, Table 2), 1958 (BC58-WA22, Table 101), 1954 (W-1-22, Tables 101 and 105), and 1947 (vol. 5, Michigan section, Table 101), and similar documents for the U.S.

a. Excludes establishements with no paid employment.
b. Week including 15 November for 1947-1963; week including 12 March for 1967 and 1972.
c. Unrevised statistics. Based upon reports from establishments with sales volume of $5,000 or over.
d. Based on 1967 Standard Industrial Classification.
e. Based on 1972 Standard Industrial Classification.

TABLE XX- 3. RANKING OF MICHIGAN COUNTIES ACCORDING TO EARNINGS IN WHOLESALE TRADE ESTABLISHMENTS AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1981

County	Percentage	
	1971	1981
Oakland	6.55	8.79
Dickinson	7.17	8.72
Tuscola	6.84	8.64
Kent	8.50	8.33
Branch	6.26	7.17
Huron	2.97	6.84
Genesee	6.97	6.34
Bay	6.06	5.81
Menominee	5.62	5.77
Wayne	7.42	5.75
Montcalm	2.51	5.10
Emmet	5.80	5.04
Hillsdale	3.80	5.00
Grand Traverse	4.69	4.95
Isabella	5.04	4.69
Berrien	2.97	4.42
Ottawa	4.15	4.42
Shiawassee	3.53	4.41
Ogemaw	3.84	4.29
Wexford	4.92	4.17
Kalamazoo	4.13	4.13
Alpena	3.75	4.13
Gratiot	4.18	3.83
Livingston	2.95	3.68
St. Clair	3.85	3.64
Allegan	2.38	3.59
Macomb	3.05	3.59
Ingham	3.49	3.48
Sanilac	1.84	3.47
Newaygo	1.65	3.40
Houghton	2.59	3.39
Jackson	3.78	3.32
Gogebic	(D)	3.30
Delta	3.61	3.29
Van Buren	2.79	3.23
Lenawee	2.19	3.18
Leelanau	(D)	3.02
Ionia	2.20	2.98
Gladwin	3.86	2.95
Monroe	2.27	2.91
Lapeer	2.30	2.90
Saginaw	4.50	2.89
Otsego	2.81	2.85
Chippewa	2.15	2.76
Marquette	2.84	2.75
Mason	1.58	2.69
Cass	4.88	2.38
St. Joseph	3.50	2.27
Presque Isle	1.57	2.26
Mackinac	3.39	2.25
Iosco	1.79	1.96
Washtenaw	1.80	1.89
Mecosta	1.28	1.66
Benzie	1.47	1.45
Charlevoix	2.30	1.44
Baraga	(D)	1.18
Alger	2.10	1.14
Schoolcraft	(D)	0.90
Midland	0.80	0.65
Ontonagon	(D)	0.56
Alcona	(D)	(D)
Antrim	1.62	(D)
Arenac	6.61	(D)
Barry	1.89	(D)
Calhoun	2.59	(D)
Cheboygan	2.93	(D)
Clare	1.32	(D)
Clinton	3.42	(D)
Crawford	2.47	(D)
Eaton	2.38	(D)
Iron	5.02	(D)
Kalkaska	(D)	(D)
Keweenaw	2.12	(D)
Lake	1.61	(D)
Luce	3.71	(D)
Manistee	3.77	(D)
Missaukee	2.97	(D)
Montmorency	(D)	(D)
Muskegon	4.43	(D)
Oceana	1.92	(D)
Osceola	3.42	(D)
Oscoda	(D)	(D)
Roscommon	2.24	(D)
Michigan	5.66	5.36
United States	6.07	6.87

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D) Withheld to avoid disclosing data for individual companies.

TABLE XX- 4. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS EARNINGS IN WHOLESALE TRADE ESTABLISHMENTS: 1980-1981

	Percentage change			Percentage change	
County	1971-1981	1980-1981	County	1971-1981	1980-1981
Houghton	214	98	Lenawee	184	0
St. Clair	128	35	Branch	178	0
Isabella	181	27	Iosco	113	0
Presque Isle	251	21	Chippewa	104	0
Mecosta	245	17	St. Joseph	53	0
Alpena	150	16	Hillsdale	210	0
Washtenaw	208	16	Gladwin	99	-1
Jackson	98	15	Dickinson	215	-2
Genesee	121	15	Gogebic	(D)	-2
Alger	24	14	Charlevoix	74	-2
Berrien	195	13	Wexford	138	-4
Schoolcraft	(D)	13	Menominee	171	-5
Kalamazoo	163	12	Midland	108	-9
Ottawa	207	12	Cass	13	-17
Mackinac	66	11	Alcona	(D)	(D)
Emmet	110	11	Antrim	(D)	(D)
Huron	453	10	Arenac	(D)	(D)
Bay	121	10	Baraga	(D)	(D)
Grand Traverse	237	10	Barry	(D)	(D)
Lapeer	209	10	Calhoun	(D)	(D)
Montcalm	400	9	Cheboygan	(D)	(D)
Mason	221	9	Clare	(D)	(D)
Allegan	290	9	Clinton	(D)	(D)
Gratiot	117	8	Crawford	(D)	(D)
Kent	162	8	Eaton	(D)	(D)
Ingham	162	8	Iron	(D)	(D)
Otsego	279	7	Kalkaska	(D)	(D)
Benzie	133	7	Keweenaw	(D)	(D)
Newaygo	339	7	Lake	(D)	(D)
Livingston	285	5	Leelanau	(D)	(D)
Marquette	169	5	Luce	(D)	(D)
Delta	134	5	Manistee	(D)	(D)
Sanilac	282	5	Missaukee	(D)	(D)
Wayne	46	4	Montmorency	(D)	(D)
Shiawassee	154	4	Muskegon	(D)	(D)
Ionia	258	3	Oceana	(D)	(D)
Ogemaw	235	3	Ontonagon	(D)	(D)
Tuscola	220	3	Osceola	(D)	(D)
Oakland	291	3	Oscoda	(D)	(D)
Van Buren	175	2	Roscommon	(D)	(D)
Macomb	168	1			
Monroe	243	1	Michigan	117	6
Saginaw	49	1	United States	191	10

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D) Withheld to avoid disclosing data for individual companies.

XXI. RETAIL TRADE

The first postwar business census was for 1948. Currently, the U.S. Bureau of the Census is authorized to conduct canvasses every five years, for years ending in 2 and 7. These economic censuses of industrial and business establishments cover construction, manufacturing, mining, retail trade, selected services, selected transportation industries, and wholesale trade. Establishments are classified on the basis of major economic activity, and those primarily engaged in selling goods for personal or household consumption are grouped under retail trade. They are further classified according to kind of business, which usually reflects commodity groupings. For example, food stores include establishments primarily selling food for preparation and consumption in the home. In some cases, such as variety stores, the classification is based on variety of merchandise, price range, or manner of doing business.

Beginning in 1954, the Census of Retail Trade has excluded firms with no paid employees during the census year unless they reported sales of $2,500 or more. Firms with no paid employees were not canvassed, their sales figures and classification being obtained from income tax returns.

It is customary in a economic census to classify each establishment separately, irrespective of whether it is part of a larger organization. For example, each McDonald's is counted as one restaurant.

Sales reported in the Census of Retail Trade do not include retail sales incidental to other kinds of business, such as wholesaling or services. They do include total receipts, including accruals, of retail establishments, even though some of these receipts were from servicing merchandise, carrying charges, delivering merchandise, wholesaling to other retailers, and so forth. Trade-in allowances are not deducted, but refunds and allowances for merchandise returned are. Sales and excise taxes are included, but nonoperating income (rental of real estate, interest or dividends on investments, and so forth) is not. Sales figures include sales so defined of all establishments with a sales volume of $2,500 or more at any time during the year, whereas the number of establishments in the Census of Retail Trade excludes those that have gone out of business during the year. Also included are establishments in operation less than the full year, with reported sales of less than $2,500, if they could have expected reaching the $2,500 figure on thee basis of year-round operation.

Payroll is as defined by the Internal Revenue Service. It includes wages and salaries, gratuities reported to the employer, commissions, bonuses, vacation and sick leave pay before deducting employees' income taxes, Social Security taxes, union dues, and so forth. Payments in kind, such as free restaurant meals, are included.

Employment for the pay period including 12 March 1977 consists of paid employees of corporations and unincorporated businesses, including salaried officers and executives of corporations, but excluding proprietors and partners of unincorporated businesses. Employees on paid sick leave or on holiday or paid vacation also are included.

All data exclude the activities of central administrative offices such as Kresge Headquarters in Troy. Auxiliaries, such as regional warehouses that supply retail outlets but conduct no retail business themselves, are excluded also.

Monthly Retail Trade, a publication of the U.S. Bureau of the Census, is based upon reports from a sample of establishments in the United States. Separate data on sales volume also are available for large states and Standard Metropolitan Statistical Areas.

The Michigan Liquor Control Commission has a monopoly on the wholesaling of liquor (but not beer and wine) in the state. It also licenses all retail outlets for consumption of liquor, wine, and beer on or off premises.

National Petroleum News, a McGraw-Hill, Inc., publication, presents a variety of information about branded gasoline service stations in its mid-May fact book issue. Some very small independent organizations are not listed, however. Table XXI-10 covers those that are.

Personal income data are released by the Bureau of Economic Analysis, U.S. Department of Commerce. Personal income statistics are discussed in chapter VI.

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XXI. RETAIL TRADE

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TABLE XXI-1. AVERAGE WAGE AND SALARY EMPLOYMENT AND WEEKLY HOURS AND EARNINGS OF SALES WORKERS IN MICHIGAN AND THE UNITED STATES RETAIL TRADE ESTABLISHMENTS: 1956-1982

	Michigan				United States			
	Employment	Weekly		Hourly	Employment	Weekly		Hourly
Year	(000)	Hours	Earnings	earnings	(000)	Hours	Earnings	earnings
1956	370.6	38.9	65.55	1.69	7,840	38.6	50.18	1.30
1957	356.0	37.6	65.46	1.74	7,858	38.1	52.20	1.37
1958	332.1	37.1	64.18	1.73	7,770	38.1	54.10	1.42
1959	322.9	37.3	66.32	1.78	8,045	38.2	56.15	1.47
1960	348.0	37.6	67.27	1.79	8,247	38.0	57.76	1.52
1961	340.1	38.0	69.58	1.83	8,204	37.6	58.66	1.56
1962	342.4	37.7	74.04	1.96	8,368	37.4	60.96	1.63
1963	345.0	38.7	74.57	1.93	8,530	37.3	62.66	1.68
1964	365.2	38.4	72.69	1.92	8,823	37.0	64.75	1.75
1965	390.7	38.5	76.73	1.99	9,250	36.6	66.61	1.82
1966	410.7	37.6	78.88	2.10	9,648	35.9	68.57	1.91
1967	419.7	37.0	81.25	2.20	9,917	35.3	70.95	2.01
1968	433.8	36.1	86.50	2.40	10,320	34.7	74.95	2.16
1969	455.9	35.0	93.98	2.69	10,798	34.2	78.66	2.30
1970	458.3	34.4	97.87	2.85	11,047	33.8	82.47	2.44
1971	460.7	34.3	108.18	3.15	11,351	33.7	87.62	2.60
1972	478.9	35.1	118.32	3.38	11,836	33.4	91.85	2.75
1973	503.3	34.6	124.84	3.61	12,329	33.1	96.32	2.91
1974	510.9	34.3	129.08	3.77	12,554	32.7	102.68	3.14
1975	509.6	34.5	141.62	4.11	12,645	32.4	108.86	3.36
1976	531.1	33.9	146.12	4.31	13,209	32.1	114.60	3.57
1977	557.1	34.0	156.88	4.61	13,808	31.6	121.66	3.85
1978	584.9	34.0	174.22	5.12	14,573	31.0	130.20	4.20
1979	590.9	33.2	186.32	5.61	14,989	30.6	138.62	4.53
1980	572.1	32.0	187.29	5.85	15,035	30.2	147.38	4.88
1981	556.8	33.3	214.50	6.44	15,192	30.1	158.03	5.25
1982	539.5	33.6	231.65	6.90	15,258	n.a.	n.a.	n.a.

SOURCE: Michigan Employment Security Commission Special Release, and Bureau of Labor Statistics, Supplement to Employment and Earnings, Revised Establishment Data (Washington, D.C.: 1982), p. 191.

n.a.: not available

TABLE XXI-2. SUMMARY STATISTICS FOR RETAIL TRADE ESTABLISHMENTS IN MICHIGAN AND THE UNITED STATES: 1947, 1954, 1958, 1963, 1967, 1972 AND 1977

	All establishments[a]				Establishments with payroll							
	Number (000)		Sales ($1,000,000)		Number (000)		Sales ($1,000,000)		Annual payroll ($1,000,000)		Paid employees[b] (000)	
Year	Mich.	U.S.	Mich.	U.S.	Mich.	U.S.	Mich.	U.S.	Mich.	U.S.	Mich.	U.S.
1947[c]	68,756	1,771,317	5,950	130,520	n.a.	n.a.	n.a.	n.a.	663	14,186	311	7,083
1947	65,990	1,668,479	5,854	128,849	48,040	1,118,692	5,477	118,352	n.a.	n.a.	n.a.	n.a.
1954	67,995	1,721,650	8,168	169,968	50,331	1,124,040	7,776	157,933	879	18,199	325	7,124
1958	72,379	1,794,744	8,898	200,365	52,291	1,185,036	8,471	187,768	946	21,673	337	7,942
1963	69,758	1,707,931	10,855	244,202	51,568	1,206,087	10,431	233,085	1,110	27,632	340	8,410
1967	63,569	1,763,324	14,114	310,214	46,921	1,191,546	13,667	295,170	1,553	36,175	398	9,380
1972[d]	72,413	1,934,466	20,938	470,806	49,729	1,286,517	20,301	451,987	2,412	56,385	466	11,360
1972[e]	71,795	1,912,871	20,630	459,040	49,111	1,264,922	19,993	440,222	2,383	55,372	462	11,210
1972[f]	65,854	1,780,441	20,546	457,405	49,111	1,264,922	19,993	440,222	2,383	55,372	462	11,210
1977[f]	67,059	1,855,068	31,912	723,134	48,431	1,303,621	31,090	699,635	3,720	85,854	524	13,040

SOURCE: Bureau of the Census, 1977 Census of Retail Trade, Geographic Area Series, Michigan (Washington, D.C.: 1979), RC77-A-23, Table 1; Bureau of the Census, U.S. Census of Retail Trade, 1972, Area Series Michigan (Washington, D.C.: 1974), RC72-A-23, Table 1 and 7; Bureau of the Census, U.S. Census of Business, 1967, Retail Trade,Michigan (Washington, D.C.: 1969), BC67-RA24, Table 2, and similar census documents for 1963 (BC63-RA24, Table 2), 1958 (BC58-RA22, Table 101), 1954 (R-1-22, Tables 101 and 101A), and 1948 (vol. 3 Michigan section, Table 101); and similar documents for the United States.

a. Excludes establishments with no paid employment and with annual sales volume less than $2,500.
b. Week including 15 November for 1947-1963; week including 12 March for 1967.
c. Unrevised statistics. Based upon reports from establishments with sales volume of $500 or over.
d. Based on 1967 Standard Industrial Classification.
e. Based on 1972 Standard Industrial Classification, including direct selling establishments without payroll.
f. Based on 1972 Standard Industrial Classification, excluding direct selling establishments without payroll.
n.a.: not available.

TABLE XXI-3. ESTIMATED ANNUAL SALES OF RETAIL STORES IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, THE STATE OF MICHIGAN, AND THE UNITED STATES: 1968-1982

(millions of dollars)

Year	Detroit Standard Metropolitan Statistical Area		Michigan		United States	
	Nondurable goods	Total	Nondurable goods	Total	Nondurable goods	Total
1968	5,476	8,178	10,372	15,975	229,079	339,324
1969	5,511	8,158	10,747	16,161	284,722	351,633
1970	5,679	8,095	11,154	16,317	261,239	375,633
1971	5,874	8,829	11,962	18,342	277,036	408,850
1972	6,164	9,159	12,934	19,792	300,642	449,069
1973	6,821	10,159	14,554	22,181	336,626	509,538
1974	7,324	10,461	15,604	22,775	371,571	540,988
1975	7,607	10,981	16,357	23,964	405,180	588,146
1976	8,234	12,444	18,067	27,034	439,570	657,375
1977	n.a.	n.a.	n.a.	29,520	476,528	725,220
1978	11,793	19,707	22,524	36,274	524,929	804,684
1979	13,045	21,614	25,119	39,676	589,534	894,343
1980	14,214	22,464	26,804	40,123	655,308	951,902
1981	15,067	21,266	28,932	40,660	712,194	1,038,790
1982	13,474	19,486	27,604	39,413	737,421	1,069,371

SOURCE: U.S. Bureau of the Census, Monthly Retail Trade, Sales and Accounts Receivable, December 1968 through 1982 (Washington, D.C.: annually), BR-80-12, Tables 1, 6, and 7 (1980).

NOTE: Figures are not strictly comparable over time because of changes in the sample of stores used for the estimate and revisions in the estimating procedure itself.

a. Based on revised sample not strictly comparable with data for previous years. The revised (comparable) figure for the U.S. for 1976, for example, is $642,507,000,000, and for 1975, $580,445,000,000. Revised Michigan data are not available.

n.a.: not available.

TABLE XXI-4. ESTIMATED MONTHLY SALES BY RETAIL STORES IN THE DETROIT STANDARD METROPOLITAN STATISTICAL AREA, THE STATE OF MICHIGAN AND THE UNITED STATES: 1978-1982

(Millions of dollars)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Detroit SMSA*												
1978	1,140	1,158	1,376	1,369	1,468	1,518	1,383	1,472	1,438	1,549	1,577	1,901
1979	1,346	1,335	1,586	1,533	1,637	1,692	1,554	1,592	1,509	1,615	1,689	2,019
1980	1,507	1,476	1,596	1,571	1,628	1,668	1,696	1,660	1,610	1,784	1,748	2,167
1981	1,653	1,550	1,844	1,864	1,862	1,816	1,757	1,699	1,680	1,755	1,703	2,083
1982	1,369	1,339	1,581	1,591	1,703	1,648	1,628	1,568	1,592	1,675	1,686	2,106
Michigan*												
1978	2,124	2,253	2,714	2,707	2,943	3,037	2,849	3,033	2,886	3,092	3,149	3,610
1979	2,644	2,597	3,095	3,040	3,243	3,280	3,100	3,233	3,025	3,293	3,336	3,825
1980	2,917	2,837	3,042	3,043	3,177	3,143	3,306	3,214	3,079	3,419	3,304	3,967
1981	3,071	2,893	3,342	3,439	3,502	3,484	3,485	3,389	3,303	3,462	3,304	3,986
1982	2,727	2,712	3,152	3,256	3,477	3,359	3,401	3,240	3,216	3,351	3,405	4,117
United States*												
1978	53,297	53,763	65,061	64,199	68,387	69,579	67,106	69,733	66,841	69,315	72,064	85,339
1979	62,589	61,394	73,120	71,360	75,615	75,650	72,957	78,770	73,436	77,304	79,775	92,373
1980	70,298	70,311	75,630	74,776	78,821	76,951	79,409	81,299	77,144	83,495	83,386	100,382
1981	76,769	73,727	83,971	85,210	86,899	87,309	88,248	89,046	85,522	88,779	87,331	106,069
1982	76,647	75,698	86,129	87,502	90,347	88,426	90,600	89,130	87,755	90,877	93,878	112,382

SOURCE: Bureau of the Census, *Monthly Retail Trade* (Washington, D.C.).

*: data not adjusted for seasonal variations, holidays or trading-day differences.

TABLE XXI-5. DEPARTMENT STORE SALES AND NUMBER OF DEPARTMENT STORES IN SELECTED MICHIGAN STANDARD METROPOLITAN STATISTICAL AREAS AND CITIES: 1979, 1980 AND 1981

	1979		1980		1981	
	Sales ($000)	Number of stores	Sales ($000)	Number of stores	Sales ($000)	Number of stores
SMSAs						
Ann Arbor	156,303	9	167,154	11	178,151	11
Detroit	2,141,996	113	2,116,864	115	2,217,264	121
Flint	298,275	26	313,463	22	333,866	23
Grand Rapids	403,340	27	435,318	27	465,648	27
Jackson	112,610	7	113,188	6	123,347	7
Kalamazoo-Portage	179,180	14	194,375	18	215,721	19
Lansing-East Lansing	302,454	17	309,371	14	324,176	16
Muskegon-Muskegon Heights-Norton Shores	107,459	7	108,757	7	116,027	7
Cities						
Battle Creek	79,713	4	D	2	D	3

SOURCE: Bureau of the Census, Monthly Retail Trade, Sales and Accounts Receivable, December 1981 (Washington, D.C.: annually), BR-81-12, Tables 8 and 8A.

D: Withheld to avoid disclosing data for individual companies.

TABLE XXI-6. RANKING OF MICHIGAN COUNTIES ACCORDING TO EARNINGS IN RETAIL TRADE AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1981

County	Percentage		County	Percentage	
	1971	1981		1971	1981
Keweenaw	8.88	23.05	Alger	12.35	10.03
Clare	22.35	22.17	St. Clair	12.44	9.95
Roscommon	28.63	20.53	Gratiot	11.68	9.92
Cheboygan	19.75	20.04	Delta	14.60	9.63
Montmorency	18.86	19.62	Montcalm	11.60	9.62
Lake	16.06	18.87	Jackson	10.28	9.60
Ogemaw	21.91	18.63	St. Joseph	10.27	9.58
Missaukee	17.75	18.35	Manistee	11.69	9.56
Alcona	20.19	18.34	Iosco	10.87	9.55
Arenac	20.76	18.28	Tuscola	12.70	9.52
Mackinac	21.42	18.26	Macomb	8.37	9.46
Gogebic	16.68	17.82	Mason	9.42	9.44
Crawford	20.54	17.69	Allegan	11.90	9.22
Oscoda	20.25	15.73	Ottawa	9.96	9.05
Schoolcraft	16.86	14.96	Monroe	12.43	8.95
Gladwin	16.22	14.91	Lenawee	10.31	8.92
Oceana	21.00	14.89	Van Buren	11.76	8.91
Benzie	14.85	14.68	Hillsdale	12.37	8.87
Emmet	19.27	14.63	Berrien	10.56	8.86
Livingston	15.05	14.60	Muskegon	9.20	8.72
Otsego	18.24	14.39	Osceola	11.06	8.72
Leelanau	13.34	13.94	Huron	13.58	8.71
Chippewa	11.27	12.77	Baraga	10.74	8.63
Grand Traverse	16.44	12.65	Marquette	9.74	8.59
Eaton	17.83	12.47	Kalamazoo	9.68	8.46
Houghton	15.75	12.34	Saginaw	9.13	8.43
Isabella	13.66	12.01	Presque Isle	12.59	8.42
Wexford	14.94	11.77	Charlevoix	13.13	8.31
Iron	15.96	11.76	Kalkaska	18.04	8.29
Antrim	12.31	11.27	Branch	10.81	8.21
Newaygo	11.40	11.26	Menominee	10.25	8.14
Oakland	11.42	10.87	Calhoun	9.54	7.87
Kent	13.01	10.83	Wayne	9.55	7.54
Barry	9.77	10.78	Cass	10.67	7.39
Mecosta	12.80	10.76	Luce	10.41	7.35
Clinton	13.15	10.58	Ingham	8.42	7.02
Bay	11.91	10.51	Genesee	8.47	6.92
Lapeer	11.56	10.47	Washtenaw	8.29	6.34
Dickinson	12.61	10.22	Ontonagon	5.67	5.56
Shiawassee	11.67	10.21	Midland	5.75	5.07
Ionia	12.88	10.16			
Alpena	12.64	10.12	Michigan	10.14	8.77
Sanilac	12.30	10.05	United States	10.82	9.42

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXI- 7. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN RETAIL TRADE: 1980-1981

County	Percentage change	
	1971-1981	1980-1981
Keweenaw	170	44
Cheboygan	153	13
St. Joseph	120	13
Mackinac	113	13
Schoolcraft	117	12
Antrim	123	12
Roscommon	97	12
Ontonagon	87	11
Benzie	134	11
Oscoda	67	11
Chippewa	81	10
Missaukee	172	10
Presque Isle	62	10
Clare	145	9
Wexford	121	9
Crawford	140	9
Leelanau	119	9
Delta	70	9
Gratiot	101	8
Alcona	113	8
St. Clair	93	8
Isabella	166	8
Ottawa	162	8
Monroe	92	8
Bay	103	7
Osceola	98	7
Barry	149	7
Charlevoix	76	7
Allegan	100	7
Midland	125	7
Newaygo	110	7
Van Buren	81	7
Otsego	195	7
Houghton	88	6
Kent	123	6
Jackson	110	6
Arenac	128	6
Hillsdale	69	6
Gladwin	139	6
Baraga	62	6
Kalkaska	241	6
Huron	54	6
Montcalm	104	5
Eaton	72	5
Manistee	93	5
Dickinson	110	5
Saginaw	114	5
Gogebic	100	5
Kalamazoo	130	5
Lenawee	69	5
Genesee	98	4
Washtenaw	124	4
Ogemaw	155	4
Ionia	108	4
Oakland	178	4
Menominee	109	4
Sanilac	66	4
Livingston	199	4
Emmet	84	4
Tuscola	90	4
Lake	79	3
Clinton	115	3
Ingham	119	3
Oceana	75	3
Lapeer	122	3
Shiawassee	78	2
Marquette	145	2
Branch	84	2
Grand Traverse	146	2
Mecosta	124	2
Wayne	49	2
Berrien	66	2
Macomb	157	2
Muskegon	118	2
Calhoun	79	2
Montmorency	89	2
Iron	75	1
Alpena	81	0
Alger	85	0
Iosco	71	0
Mason	89	-2
Luce	81	-3
Cass	62	-5
Michigan	98	4
United States	124	8

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

TABLE XXI-8. LICENSES ISSUED BY REASON AND CLASS AND BY COUNTY: MAY 1, 1981-APRIL 30, 1982

	Food service establishments			Mobile establishments			Vending machine locations			Class totals			
County	Renewal	New owner	New establishment	Renewal	New owner	New establishment	Renewal	New owner	New establishment	Renewal	New owner	New establishment	County total
Alcona	49	7	1	--	--	--	--	--	--	49	7	1	57
Alger	59	3	3	--	--	--	--	--	--	59	3	3	65
Allegan	229	15	21	6	--	1	12	--	12	247	15	34	296
Alpena	102	3	4	--	--	2	16	--	4	118	3	10	131
Antrim	62	10	7	--	--	--	--	--	--	62	10	7	79
Arenac	62	1	2	--	--	--	1	--	--	63	1	2	66
Baraga	40	2	2	--	--	--	--	--	1	40	2	3	45
Barry	96	9	10	4	1	4	9	--	11	109	10	25	144
Bay	335	22	22	1	--	1	45	1	3	381	23	26	430
Benzie	49	4	6	1	--	--	1	--	--	51	4	6	61
Berrien	522	32	44	4	--	7	109	--	1	635	32	52	719
Branch	114	4	3	--	--	1	16	--	7	130	4	11	145
Calhoun	398	34	29	6	--	4	92	--	21	496	34	54	584
Cass	119	6	10	--	6	4	20	--	3	139	12	17	168
Charlevoix	99	11	7	1	--	--	--	--	--	100	11	7	118
Cheboygan	97	17	4	1	--	--	--	--	--	98	17	4	119
Chippewa	169	8	7	2	--	--	--	--	--	171	8	7	186
Clare	88	12	7	4	1	--	3	--	--	95	13	7	115
Clinton	119	14	10	--	--	--	7	--	1	126	14	11	151
Crawford	49	3	3	--	--	--	--	--	--	49	3	3	55
Delta	161	8	3	4	--	--	7	11	2	172	19	5	196
Dickinson	103	6	10	1	--	--	11	7	2	115	13	12	140
Eaton	238	15	16	5	--	--	31	--	4	274	15	20	309
Emmet	132	9	11	1	--	2	--	--	--	133	9	13	155
Genesee	1,093	87	116	14	--	19	243	1	20	1,350	88	155	1,593
Gladwin	54	3	3	1	1	--	2	--	--	57	4	3	64
Gogebic	119	8	9	--	--	--	--	--	--	119	8	9	136
Grand Traverse	183	12	13	2	3	2	27	--	6	212	15	21	248
Gratiot	114	3	7	2	--	--	4	--	--	120	3	7	130
Hillsdale	115	6	7	--	1	2	19	1	3	134	8	12	154

TABLE XXI-8. LICENSES ISSUED BY REASON AND CLASS AND BY COUNTY: MAY 1, 1981-APRIL 30, 1982 (cont.)

County	Food service establishments			Mobile establishments			Vending machine locations			Class totals			County total
	Renewal	New owner	New establishment	Renewal	New owner	New establishment	Renewal	New owner	New establishment	Renewal	New owner	New establishment	
Houghton	161	9	12	--	--	--	1	--	6	162	9	18	189
Huron	156	9	6	--	--	1	19	--	3	175	9	10	194
Ingham	696	54	41	7	1	6	159	14	8	862	69	55	986
Ionia	143	10	10	2	--	2	12	--	--	157	10	12	179
Iosco	109	13	8	3	--	--	1	--	--	113	13	8	134
Iron	75	5	3	1	--	--	2	--	--	78	5	3	86
Isabella	118	9	6	1	--	--	10	1	--	129	10	6	145
Jackson	429	36	37	11	--	6	102	--	8	542	36	51	629
Kalamazoo	611	41	46	1	--	4	133	--	25	745	41	75	861
Kalkaska	33	7	2	--	--	1	1	--	--	34	7	3	44
Kent	1,057	106	81	20	1	26	258	--	57	1,335	107	164	1,606
Keweenaw	26	--	--	--	--	--	--	--	--	26	--	--	26
Lake	33	7	3	--	--	--	--	--	--	33	7	3	43
Lapeer	132	16	14	3	1	1	6	--	1	141	17	16	174
Leelanau	62	5	6	--	--	1	--	--	1	62	5	8	75
Lenawee	279	31	15	5	--	--	27	10	2	311	41	17	369
Livingston	166	26	17	2	--	1	27	--	--	195	26	18	239
Luce	35	--	--	--	--	--	--	--	--	35	--	--	35
Mackinac	118	10	9	--	--	3	--	--	--	118	10	12	140
Macomb	1,818	112	126	21	1	6	530	66	104	2,369	179	236	2,784
Manistee	111	9	5	--	--	--	7	--	--	118	9	5	132
Marquette	238	13	20	1	1	1	18	--	6	257	14	27	298
Mason	116	7	10	3	--	--	5	--	--	124	7	10	141
Mecosta	95	8	3	3	--	1	22	--	--	120	8	4	132
Menominee	110	2	4	--	--	--	11	--	--	121	2	4	127
Midland	163	14	8	2	--	2	24	--	2	189	14	12	215
Missaukee	28	4	2	--	--	--	--	--	--	28	4	2	34
Monroe	358	30	29	6	--	3	47	--	4	411	30	36	477
Montcalm	146	14	13	3	--	1	13	--	--	162	14	14	190
Montmorency	41	6	5	--	--	1	--	--	--	41	6	6	53

TABLE XXI-8. LICENSES ISSUED BY REASON AND CLASS AND BY COUNTY: MAY 1, 1981-APRIL 30, 1982 (cont.)

County	Food service establishments			Mobile establishments			Vending machine locations			Class totals			County total
	Renewal	New owner	New establishment	Renewal	New owner	New establishment	Renewal	New owner	New establishment	Renewal	New owner	New establishment	
Muskegon	446	33	20	4	--	4	147	--	37	597	33	61	691
Newaygo	101	8	10	2	1	1	3	--	--	106	9	11	126
Oakland	2,501	160	253	56	11	35	496	23	135	3,053	194	423	3,670
Oceana	95	10	10	--	--	--	2	--	--	97	10	10	117
Ogemaw	46	11	3	1	--	--	--	--	1	47	11	4	62
Ontonagon	59	5	1	--	--	--	--	--	2	59	5	3	67
Osceola	52	3	2	3	--	1	3	--	2	58	3	5	66
Oscoda	36	1	2	1	--	1	--	--	--	37	1	3	41
Otsego	79	7	4	1	--	--	6	--	--	86	7	4	97
Ottawa	333	20	31	6	1	3	87	11	38	426	32	72	530
Presque Isle	54	4	3	--	--	--	--	--	--	54	4	3	61
Roscommon	111	12	6	--	--	--	--	--	--	111	12	6	129
Saginaw	619	41	60	13	2	3	94	--	5	726	43	68	837
St. Clair	368	34	30	4	--	2	120	--	12	492	34	44	570
St. Joseph	187	12	9	5	--	3	24	4	1	216	16	13	245
Sanilac	122	9	9	1	--	1	27	--	4	150	9	14	173
Schoolcraft	57	4	8	--	--	--	--	--	2	57	4	10	71
Shiawassee	163	16	14	--	--	1	19	--	1	182	16	16	214
Tuscola	144	4	10	1	--	--	17	--	5	162	4	15	181
Van Buren	195	9	16	3	--	5	31	--	3	229	9	24	262
Washtenaw	648	38	59	5	--	3	142	27	17	795	65	79	939
Wayne	5,748	533	551	161	11	77	985	231	282	6,894	775	910	8,579
Wexford	92	4	4	1	1	--	14	1	4	107	6	8	121
TOTAL	25,088	1,965	2,053	423	45	261	4,327	409	879	29,838	2,419	3,193	35,450

SOURCE: Michigan Department of Public Health, Division of Food Service Sanitation, special release.

TABLE XXI-9 FOOD SERVICE ESTABLISHMENTS BY TYPE, 1 MAY 1981

County	Bar only	Cafeteria	Fast food	Table service	Church	Commissary	Other	Total
Alcona	8	13	10	23	1	--	2	57
Alger	15	6	10	31	1	--	2	65
Allegan	20	54	75	94	1	2	18	264
Alpena	18	23	27	41	--	--	--	109
Antrim	11	13	12	38	3	1	1	79
Arenac	10	6	9	37	--	1	3	65
Baraga	10	10	4	17	--	1	2	44
Barry	8	18	43	35	6	1	4	115
Bay	69	59	98	134	8	2	8	378
Benzie	8	5	14	31	--	--	1	59
Berrien	36	98	184	248	20	6	6	598
Branch	7	21	28	56	5	2	2	121
Calhoun	62	74	125	173	15	2	10	461
Cass	7	21	30	68	8	1	--	135
Charlevoix	7	21	21	53	5	--	10	117
Cheboygan	18	14	30	56	--	--	--	118
Chippewa	21	23	39	90	8	2	1	184
Clare	14	8	25	48	1	1	10	107
Clinton	7	33	34	52	7	2	8	143
Crawford	4	6	10	31	--	2	1	54
Delta	38	27	25	71	8	--	3	172
Dickinson	33	20	17	48	--	--	1	119
Eaton	17	58	71	72	18	2	31	269
Emmet	6	16	23	90	8	3	5	151
Genesee	123	231	344	449	58	11	79	1,295

TABLE XXI-9 FOOD SERVICE ESTABLISHMENTS BY TYPE, 1 MAY 1981 (cont.)

County	Bar only	Cafeteria	Fast food	Table service	Church	Commissary	Other	Total
Gladwin	8	6	10	33	1	--	2	60
Gogebic	35	20	16	62	--	1	2	136
Grand Traverse	11	30	74	79	--	6	8	208
Gratiot	13	33	24	43	4	1	6	124
Hillsdale	9	27	31	47	12	--	1	127
Houghton	54	32	24	63	8	--	1	182
Huron	26	28	32	71	12	1	1	171
Ingham	27	151	245	246	31	9	81	790
Ionia	8	34	35	75	6	--	5	163
Iosco	7	13	22	79	2	--	7	130
Iron	27	8	14	30	1	1	2	83
Isabella	4	33	36	50	1	1	8	133
Jackson	27	92	148	196	12	5	16	496
Kalamazoo	27	142	278	225	20	2	3	697
Kalkaska	2	8	4	20	7	--	1	42
Kent	118	187	294	415	13	16	201	1,244
Keweenaw	6	2	5	13	--	--	--	26
Lake	3	7	7	25	--	--	--	43
Lapeer	11	41	51	48	2	--	9	162
Leelanau	4	10	19	37	--	--	3	73
Lenawee	14	65	80	150	4	1	11	325
Livingston	6	35	57	99	3	2	7	209
Luce	7	6	5	15	--	--	2	35
Mackinac	9	14	15	92	2	1	1	134
Macomb	65	299	553	715	50	4	368	2,054

TABLE XXI-9. FOOD SERVICE ESTABLISHMENTS BY TYPE, 1 MAY 1981 (cont.)

County	Bar only	Cafeteria	Fast food	Table service	Church	Commissary	Other	Total
Manistee	14	13	24	58	8	3	4	124
Marquette	42	36	58	107	15	--	12	270
Mason	8	19	40	46	13	3	4	133
Mecosta	10	26	12	58	--	--	--	106
Menominee	25	20	9	46	11	1	2	114
Midland	12	51	39	54	5	2	22	185
Missaukee	4	6	11	13	--	--	--	34
Monroe	31	59	74	156	6	4	86	416
Montcalm	10	38	32	80	10	2	1	173
Montmorency	6	6	6	30	4	--	--	52
Muskegon	73	95	133	172	5	9	12	499
Newaygo	7	25	18	48	7	2	12	119
Oakland	80	546	825	1,037	83	16	324	2,911
Ocena	6	20	23	44	11	--	11	115
Ogemaw	7	7	12	32	1	--	1	60
Ontonagon	24	10	7	23	1	--	--	65
Osceola	2	13	2	39	--	--	1	57
Oscoda	4	2	8	23	--	--	2	39
Otsego	10	12	23	36	3	--	6	90
Ottawa	12	95	75	130	33	5	32	382
Presque Isle	14	8	8	24	6	--	1	61
Roscommon	13	12	37	61	5	--	--	128
Saginaw	53	183	148	282	10	2	41	719
St. Clair	45	75	122	152	13	7	18	432
St. Joseph	11	37	41	94	14	2	5	204

TABLE XXI-9. FOOD SERVICE ESTABLISHMENTS BY TYPE, 1 MAY 1981 (cont.)

County	Bar only	Cafeteria	Fast food	Table service	Church	Commissary	Other	Total
Sanilac	10	23	26	77	3	--	1	140
Schoolcraft	11	12	12	29	1	--	4	69
Shiawassee	16	44	43	64	4	--	22	193
Tuscola	15	33	22	80	8	--	--	158
Van Buren	22	28	55	91	11	9	3	219
Washtenaw	23	153	220	248	20	6	75	745
Wayne	523	886	1,728	2,876	171	56	560	6,800
Wexford	5	16	30	47	--	--	2	100
TOTAL	2,253	4,810	7,310	11,371	854	221	2,219	29,038

SOURCE: Michigan Department of Public Health, Division of Food Service Sanitation, special release.

TABLE XXI-10. BRANDED GASOLINE RETAIL OUTLETS IN MICHIGAN 1977-1982

	1977	1978	1979	1980	1981	1982
Amoco Oil Co.[a]	1,687	1,531	1,363	1,304	1,249	1,156
Atlantic Richfield Co.[b]	262	101	143	133	130	92
Autotronic Systems, Inc.	--	3	--	--	--	--
Boron Oil Corp.	(c)	(c)	--	--	--	--
Cel Oil Products Corp.	--	--	--	--	--	15
Champlin Petroleum Co.	2	--	--	1	2	--
Charter Oil Co.	--	--	--	--	--	2
Checker Oil Co.	41	41	--	--	49	--
Chevron USA, Inc.	--	--	--	--	--	47
Cities Service Oil Co.	2	--	63	65	60	--
Clark Oil & Refining Co.[d]	331	329	328	328	328	--
Coen Oil	--	--	--	--	--	57
Consumers Gasoline Stations	--	--	--	--	--	17
Consumers Petroleum Co.	119	113	107	--	--	--
Continental Oil Co.	10	9	0	--	--	--
Crystal USA Oil Co.	--	--	--	--	--	20
Don Foster Oil Co.	--	--	--	--	--	48
Dow Foster Oil Co.	--	51	--	--	--	39
Drake's Refinery Stations, Inc.	--	--	20	15	15	14
Engelfield Oil Co.	--	--	--	--	--	32
Exxon Co., USA	10	0	0	0	--	--
Fisca Oil Co., Inc.	9	9	9	9	9	9
Getty Refining & Marketing Co.	--	--	--	--	--	6
Gulf Oil Corp.	308	227	178	314	208	220
Highway Oil, Inc.	2	2	--	2	3	3
Hudson Oil Co.	(c)	(c)	8	8	5	8
Kayo Oil Co.	68	(c)	--	--	--	--
Kerr-McGee Corp.	6	6	6	4	--	--
Key Petroleum, Inc.	--	--	--	--	--	1
Kimber Petroleum Corp.	16	--	--	--	--	--
Koch Refining, Inc.	0	13	0	--	--	--
Leonard Refining, Inc. (Total Lenoard, Inc.)	628	(c)	--	--	--	--
Marathon Oil Co.	603	569	542	437	442	506
Martin Oil Service, Inc.	29	28	28	28	20	13
McLeicer	--	47	--	--	--	--

TABLE XXI-10. BRANDED GASOLINE RETAIL OUTLETS IN MICHIGAN: 1977-1982 (cont.)

	1977	1978	1979	1980	1981	1982
Meade Corp.[e]	--	27	--	--	--	--
Mico Oil Co., Inc.	--	--	--	1	1	1
Midland Coops., Inc.	11	11	11	11	12	10
Mid-States Petroleum, Inc.	--	--	--	--	--	45
Miller and Holmes, Inc.	--	--	--	--	--	1
The Miller Oil Co.	--	7	4	2	1	2
Mobil Oil Co.	1,076	1,019	962	898	863	807
Murphy Oil Corp.	55	55	49	47	44	35
Naph Sol Refining Co.	223	178	150	93	--	--
Pennzoil Co.	--	19	--	--	--	--
Phillips Petroleum Co.[f]	124	167	205	160	197	144
Pride Brand Services, Inc.	--	--	7	9	--	5
Shell Oil Co.	464	382	349	350	315	299
Sigmor Oil Co.	--	--	3	3	3	3
Site Oil Co.	7	--	--	--	--	--
Skelly Oil Co.	--	--	--	--	--	--
South Central Oil Co.	9	9	8	--	3	3
Star Oil Co.	--	--	--	--	--	55
Sun Co.	831	641	658	--	--	471
Sunmark Industries	--	--	--	--	--	481
Texaco, Inc.	717	557	619	595	374	107
Thornton Oil Co.	--	--	(c)	1	2	2
Total Petroleum, Inc.[g]	--	598	519	--	516	520
Tulsa Oil Corp.	66	59	--	--	--	--
Union Oil Co. of CA	621	639	535	506	512	552
United Refining Co.	28	12	0	--	--	--
Warelubco Inc.	--	--	1	--	--	--
Webb Oil Co.	--	18	21	18	20	18
Zephyr, Inc.	--	--	--	--	--	80

SOURCE: National Petroleum News, Factbook Issue, Mid-June issue.

a. Includes Omega Oil Co.
b. Includes Prestige Stations, Inc.
c. Company markets in Michigan, but figures not supplied.
d. Includes Ownes and Bronco.
e. Includes Maverick Oil Co.
f. Includes Pryamid Oil Co., Tallman Oil Co., Metro 66, and Aero Oil Co.
g. Total and Best Division, Total Petroleum.
--: Companies no longer operating branded retail outlets or data not available.

XXII. FINANCE, INSURANCE, AND REAL ESTATE

Information on the number of banking offices in the state and operating statistics of insured banks are available from the Federal Deposit Insurance Corporation. Data on bank activity throughout the state are contained in the publications and releases of the Board of Governors of the Federal Reserve System. The Board of Governors releases Bank Debits and Deposit Turnover monthly, listing debits for the Federal Reserve districts and the principal cities. Detailed information on bank debits in Michigan also is available in the releases of the Federal Reserve banks of Chicago and Minneapolis.

Total time and demand deposits by counties and states are available in the F.D.I.C. publication, Summary of Deposits in All Commercial and Mutual Savings Banks. Information on bank balance sheet items and operations can be obtained in two other F.D.I.C. publications, Bank Operating Statistics and Assets and Liabilities - Commercial and Mutual Savings.

Detailed data about the operations of savings and loan associations are presented in the annual Asset and Liability Trends, published by the Federal Home Loan Bank Board. Small loan company and state-chartered credit union operations in Michigan are covered in Analysis and Recapitulation of Reports of Regulatory Loan Licenses and Abstracts of Reports of Credit Unions, respectively, of the Financial Institutions Bureau, Michigan Department of Commerce. Similar data on credit unions chartered by the federal government are given in the Annual Report published by the Bureau of Federal Credit Unions. Information on production credit associations is available in the Annual Report of the U.S. Farm Credit Administration.

The basic source of information about insurance operations in Michigan is the Annual Report of the Michigan Department of Insurance. This includes the home office address and a summary of financial conditions for all companies licensed to do business in Michigan. The annual Life Insurance Fact Book of the Institute of Life Insurance presents data about the amount of insurance in force, benefit payments, premium collections, and so forth, for the United States, as well as a good deal of information on a state basis.

Statistics on the number of certified public accountants and real estate brokers and salesmen licensed in each county are tabulated by the Michigan Department of Regulation, which licenses these occupations.

The economic importance of finance, insurance, and real estate in each Michigan county (Table XXII-7) was developed from the personal income accounts that are prepared by the Bureau of Economic Analysis, U.S. Department of Commerce. Personal income statistics are discussed in the introduction to chapter VI.

Data on health insurance are included in chapter III.

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TABLE XXII-1. AVERAGE WAGE AND SALARY EMPLOYMENT AND WEEKLY HOURS AND EARNINGS OF SALES WORKERS IN MICHIGAN AND THE UNITED STATES FINANCE INSURANCE AND REAL ESTATE ESTABLISHMENTS: 1956-1982

	Michigan[a]	United States			
	Employment	Employment	Weekly		Hourly
Year	(000)	(000)	Hours	Earnings	earnings
1956	75.9	2,389	36.9	65.68	1.78
1957	78.0	2,438	36.7	67.53	1.84
1958	78.6	2,481	37.1	7[illegible].12	1.89
1959	80.4	2,549	37.3	7[illegible].74	1.95
1960	82.8	2,629	37.2	75.14	2.02
1961	84.9	2,688	36.9	77.12	2.09
1962	86.3	2,754	37.3	80.94	2.17
1963	88.2	2,830	37.5	84.38	2.25
1964	90.5	3,911	37.3	85.79	2.30
1965	94.0	2,977	37.2	88.91	2.39
1966	99.8	3,058	37.3	92.13	2.47
1967	105.0	3,185	37.1	95.72	2.58
1968	109.6	3,337	37.0	101.75	2.75
1969	115.5	3,512	37.1	108.70	2.93
1970	119.7	3,645	36.7	112.67	3.07
1971	121.0	3,772	36.6	117.85	3.22
1972	127.7	3,908	36.6	122.98	3.36
1973	130.3	4,046	36.6	129.20	3.53
1974	134.2	4,148	36.5	137.61	3.77
1975	134.0	4,165	36.5	148.19	4.06
1976	136.9	4,271	36.4	155.43	4.27
1977	142.2	4,467	36.4	165.26	4.54
1978	147.4	4,724	36.4	178.00	4.89
1979	154.5	4,975	36.2	190.77	5.27
1980	156.5	5,160	36.2	209.60	5.79
1981	154.0	5,301	36.3	229.05	6.31
1982	155.0	5,305	36.2	245.44	6.78

SOURCE: Michigan Employment Security Commission Special release, and Bureau of Labor Statistics, Employment and Earnings. (Washington, D.C.: Monthly), March 1983, Tables B-1 and C-1.

[a] Hours and earnings data are not available for Michigan.

TABLE XXII-2. NUMBER OF BANKS, SAVINGS AND LOAN, AND CREDIT UNION OFFICES AND BRANCHES IN MICHIGAN, YEAR END: 1959-1981

Year	Commercial banks			Savings and loan		Credit unions[b]		
	Unit banks	Banks with branches	Total offices[a]	Number of associations	Total offices[a]	State chartered	Federally chartered	Total
1959	261	112	916	73	n.a.	673	423	1,096
1960	246	134	958	73	n.a.	716	417	1,133
1961	230	143	990	73	n.a.	763	411	1,174
1962	221	150	1,042	73	n.a.	782	406	1,188
1963	214	153	1,095	72	n.a.	781	406	1,187
1964	193	168	1,166	72	n.a.	782	408	1,190
1965	176	178	1,247	72	207	790	399	1,189
1966	157	190	1,335	71	210	815	379	1,194
1967	151	190	1,390	71	212	813	368	1,182
1968	145	193	1,439	70	222	818	366	1,184
1969	133	199	1,485	70	239	810	371	1,181
1970	129	202	1,534	68	248	787	372	1,159
1971	122	209	1,685	65	390	754	364	1,118
1972	111	221	1,662	65	307	724	368	1,092
1973	107	233	1,740	65	326	706	363	1,069
1974	98	249	1,827	66	360	679	365	1,044
1975	88	263	1,913	67	400	656	367	1,023
1976	85	275	1,993	66	434	630	358	988
1977	82	280	2,066	66	478	611	352	963
1978	72	293	2,158	65	526	597	350	937
1979	70	302	2,373	65	563	584	345	929
1980	64	312	2,535	63	608	572	340	924
1981	46	204	1,388	59	637	560	309	869

SOURCE: Michigan Department of Commerce, Financial Institutions Bureau, special release.

a. Main offices plus branches.
b. Branch office data are not available.

n.a.: not available.

TABLE XXII-3. YEAR-END ASSETS OF COMMERCIAL BANKS, SAVINGS AND LOAN ASSOCIATIONS, AND CREDIT UNIONS IN MICHIGAN: 1961-1981

(In millions of dollars)

Year	Commercial banks[a]	Savings & loan associations	Credit unions[b]
1961	10,259	2,055	553
1962	11,490	2,356	622
1963	12,358	2,705	709
1964	13,915	3,093	831
1965	15,457	3,341	954
1966	16,977	3,424	1,053
1967	19,108	3,719	1,164
1968	21,190	3,979	1,306
1969	22,684	4,288	1,457
1970	25,133	4,830	1,605
1971	27,393	5,760	1,815
1972	30,024	6,842	2,047
1973	33,223	7,692	2,227
1974	34,611	8,478	2,388
1975	35,938	9,753	2,698
1976	38,091	11,365	2,929
1977	43,189	13,257	3,491
1978	48,165	15,255	3,971
1979	50,218	16,925	4,150
1980	53,392	18,426	4,043
1981	56,504	18,713	2,594

SOURCE: Michigan Department of Commerce, Financial Institutions Bureau, special release.

a. Insured and uninsured
b. State and Federal chartered

TABLE XXII-4. ASSETS OF COMMERCIAL BANKS IN MICHIGAN INSURED BY THE FEDERAL DEPOSIT INSURANCE CORPORATION: 31 DECEMBER 1978, 1979, 1980 AND 1981

(In thousands of dollars)

Assets	1978	1979	1980	1981
Michigan chartered				
Cash and due from depository institutions	$ 2,260,827	$ 2,185,020	$ 2,993,016	$ 4,258,745
U.S. Treasury securities	1,997,796	1,872,223	2,289,004	2,012,121
Obligations of other U.S. Gov't. agencies & corps.	651,779	790,022	975,366	1,209,436
Obligations of States & political subdivisions in U.S.	2,767,790	2,996,337	2,919,810	2,659,394
All other securities	166,481	160,112	199,221	206,328
Federal funds sold & securities purchased under agreements to resell	593,854	545,157	709,861	859,297
Loans, Total (excluding unearned income)	11,780,887	13,322,186	13,199,995	13,355,796
Less: Allowance for possible loan losses	114,799	123,854	125,737	137,503
Loans, Net	11,666,088	13,198,332	13,074,258	13,218,293
Lease financing receivables	31,929	35,158	37,438	33,434
Bank premises, furniture & fixtures & other assets representing bank premises	331,889	379,231	423,558	444,928
Real estate owned other than bank premises	35,754	22,677	27,004	40,889
All other assets	262,560	328,756	392,236	613,637
TOTAL ASSETS	$20,766,747	$22,513,025	$24,040,772	$25,556,502

TABLE XXII-4. ASSETS OF COMMERCIAL BANKS IN MICHIGAN INSURED BY THE FEDERAL DEPOSIT INSURANCE CORPORATION: 31 DECEMBER 1978, 1979, 1980 AND 1981 (cont.)

(In thousands of dollars)

Assets	1978	1979	1980	1981
	National chartered			
Cash and due from depository institutions	$ 4,567,813	$ 3,933,563	$ 4,544,432	$ 5,702,122
U.S. Treasury securities	1,776,903	1,759,427	2,107,161	1,680,413
Obligations of other U.S. Gov't. agencies & corps.	462,506	555,597	660,014	837,457
Obligations of States & political subdivisions in U.S.	2,669,842	3,133,232	3,206,468	2,628,119
All other securities	219,175	204,969	306,286	209,710
Federal funds sold & securities purchased under agreements to resell	1,773,774	1,199,393	635,903	1,426,437
Loans, Total (Excluding unearned income)	14,937,991	15,688,182	16,417,203	16,514,877
Less: Allowance for possible loan losses	139,275	145,980	155,625	161,096
Loans, Net	14,798,716	15,542,202	16,261,578	16,353,781
Lease financing receivables	124,636	137,661	209,559	259,656
Bank premises, furniture & fixtures & other assets representing bank premises	395,682	445,606	476,154	468,855
Real estate owned other than bank premises	32,582	35,665	33,622	50,215
All other assets	576,699	757,334	909,696	1,130,732
TOTAL ASSETS	$27,398,328	$27,704,649	$29,350,873	$30,947,497

SOURCE: Michigan Department of Commerce, Financial Institutions Bureau, Annual Report, Calendar Year 1981 (Lansing, Michigan), pp. 5 and 7.

TABLE XXII-5. LIABILITIES AND EQUITY CAPITAL OF ALL COMMERCIAL BANKS IN MICHIGAN: 31 DECEMBER 1978, 1979, 1980, AND 1981

(In thousands of dollars)

Liabilities and equity capital	1978	1979	1980	1981
		Michigan chartered		
LIABILITIES				
Demand deposits of individuals, partnerships and corporations	$ 3,690,835	$ 3,754,645	$ 3,645,663	$ 3,410,619
Time & savings deposits of individuals, partnerships and corporations	11,793,557	12,978,004	14,523,469	16,275,885
Deposits of United States government	36,428	20,936	21,550	20,537
Deposits of States and political subdivisions in the United States	1,990,730[a]	1,804,966[a]	1,624,418[a]	1,676,258
All other deposits	157,943	175,397	160,203	242,507
Certified and officers' checks	259,327	240,310	235,108	239,243
TOTAL DEPOSITS	17,928,820	18,974,258	20,210,491	21,865,049
Federal funds purchased and securities sold under agreements to repurchase	790,808	1,236,120	1,479,219	1,066,893
Interest bearing demand notes (note balances) issued to U.S. Treasury & other liabilities for borrowed money	228,779	252,325	205,551	236,731
Mortgage indebtedness and liability for capitalized leases	18,137	20,305	20,733	22,109
All other liabilities	307,254	377,447	379,638	572,631
TOTAL LIABILITIES	$19,273,798	$20,860,455	$22,295,632	$23,763,413
Subordinated notes and debentures	$ 98,148	$ 102,617	$ 98,415	$ 93,934

TABLE XXII-5. LIABILITIES AND EQUITY CAPITAL OF ALL COMMERCIAL BANKS IN MICHIGAN: 31 DECEMBER 1978, 1979, 1980, AND 1981 (cont.)

(In thousands of dollars)

Liabilities and equity capital	1978	1979	1980	1981
EQUITY CAPITAL				
Preferred stock	$ 2,040	$ 2,040	$ 1,540	$ 1,540
Common stock	283,146	305,214	332,500	343,048
Surplus	570,786	637,574	654,243	685,004
Undivided profits & reserve for contingencies & other capital reserves	538,829	605,125	658,442	669,563
TOTAL EQUITY CAPITAL	1,394,801	1,549,953	1,646,725	1,699,155
TOTAL LIABILITIES AND EQUITY CAPITAL	$20,766,747	$22,513,025	$24,040,772	$25,556,502
	National chartered			
LIABILITIES				
Demand deposits of individuals, partnerships and corporations	$ 5,660,261	$ 5,257,874	$ 4,888,765	$ 5,114,339
Time & savings deposits of individuals, partnerships and corporations	12,055,703	12,770,932	13,920,456	14,869,068
Deposits of United States government	81,707	57,044	43,926	53,514
Deposits of States and political subdivisions in the United States	2,424,599[a]	2,083,819	1,837,227	1,970,495
All other deposits	1,803,701	1,684,461	1,875,557	1,997,659
Certified and officers' checks	628,607	415,483	586,665	225,761
TOTAL DEPOSITS	$22,654,578	$22,269,613	$23,152,596	$24,230,836

TABLE XXII-5. LIABILITIES AND EQUITY CAPITAL OF ALL COMMERCIAL BANKS IN MICHIGAN: 31 DECEMBER 1978, 1979, 1980, AND 1981 (cont.)

(In thousands of dollars)

Liabilities and equity capital	1978	1979	1980	1981
Federal funds purchased and securities sold under agreements to repurchase	$ 1,699,809	$ 2,131,621	$ 2,821,136	$ 2,984,207
Interest bearing demand notes (note balances) issued to U.S. Treasury and other liabilities for borrowed money	494,653	518,245	446,366	565,042
Mortgage indebtedness and liability for capitalized leases	41,651	42,200	42,359	42,722
All other liabilities	676,980	897,179	962,784	1,191,082
TOTAL LIABILITIES	$25,567,671	$25,858,858	$27,425,241	$29,013,889
Subordinated notes and debentures	$ 113,355	$ 106,836	$ 97,407	$ 78,919
EQUITY CAPITAL				
Preferred stock	$ 0	$ 0	$ 720	$ 720
Common stock	339,454	346,626	357,768	360,183
Surplus	639,850	578,558	597,428	590,425
Undivided profits & reserve for contingencies and other capital reserves	737,998	813,771	872,309	903,361
TOTAL EQUITY CAPITAL	1,717,302	1,738,955	1,828,225	1,854,689
TOTAL LIABILITIES AND EQUITY CAPITAL	$27,398,328	$27,704,649	$29,350,873	$30,947,497

SOURCE: Michigan Department of Commerce, Financial Institutions Bureau, Annual Report, Calendar Year 1981 (Lansing, Michigan), pp. 5 and 7.

a. Includes deposits of State money--Michigan.

TABLE XXII-6. NUMBER OF BANKS OPERATING IN AND BANKING OFFICES LOCATED IN MICHIGAN, BY COUNTY: 30 JUNE 1982

County	Banks	Banking offices	County	Banks	Banking offices
Alcona	2	3	Lake	1	2
Alger	3	7	Lapeer	8	22
Allegan	7	24	Leelanu	3	7
Alpena	3	13	Lenawee	13	34
Antrim	7	11	Livingston	9	27
Arenac	4	6	Luce	2	2
Baraga	2	2	Mackinac	3	8
Barry	6	7	Macomb	26	167
Bay	9	46	Manistee	2	11
Benzie	4	5	Marquette	7	25
Berrien	10	58	Mason	4	9
Branch	5	17	Mecosta	4	14
Calhoun	9	38	Menominee	4	10
Cass	5	14	Midland	3	20
Charlevoix	6	11	Missaukee	3	4
Cheboygan	2	10	Monroe	8	32
Chippewa	4	13	Montcalm	9	18
Claire	4	8	Montmorency	2	3
Clinton	5	17	Muskegon	8	35
Crawford	3	6	Newaygo	7	9
Delta	6	15	Oakland	41	301
Dickinson	6	12	Oceana	4	7
Eaton	10	23	Ogemaw	5	7
Emmet	6	17	Ontonagon	3	5
Genesee	11	105	Osceola	6	7
Gladwin	3	7	Oscoda	1	2
Gogebic	4	7	Otsego	2	6
Grand Traverse	5	32	Ottawa	15	54
Gratiot	5	14	Presque Isle	4	4
Hillsdale	6	14	Roscommon	2	7
Houghton	6	14	Saginaw	11	66
Huron	10	20	St. Clair	8	50
Ingham	13	72	St. Joseph	10	27
Ionia	7	17	Sanilac	9	20
Iosco	3	11	Schoolcraft	2	4
Iron	4	8	Shiawassee	7	23
Isabella	7	19	Tuscola	12	21
Jackson	7	48	Van Buren	9	18
Kalamazoo	9	64	Washtenaw	14	75
Kalkaska	3	4	Wayne	29	453
Kent	22	146	Wexford	3	13
Keweenaw	1	1	TOTAL	577	2,615

SOURCE: Michigan Department of Commerce, Financial Institutions Bureau, Financial Institutions Sorted by County, June 30, 1982.

TABLE XXII-7. RANKING OF MICHIGAN COUNTIES ACCORDING TO EARNINGS IN FINANCE, INSURANCE, AND REAL ESTATE AS A PERCENTAGE OF TOTAL LABOR AND PROPRIETORS' EARNINGS: 1981

County	Percentage		County	Percentage	
	1971	1981		1971	1981
Eaton	3.24	8.90	Branch	2.37	2.91
Livingston	6.73	7.36	Bay	2.07	2.90
Montmorency	3.65	7.29	Iosco	2.49	2.90
Lake	3.73	7.26	Benzie	2.47	2.84
Calhoun	(D)	6.20	Mason	1.84	2.83
Oakland	4.33	6.15	Jackson	2.78	2.81
Missaukee	4.08	5.64	Ionia	2.68	2.75
Gladwin	4.96	5.59	Oscoda	(D)	2.73
Grand Traverse	4.14	5.42	Gratiot	2.68	2.69
Roscommon	5.55	5.22	Schoolcraft	2.97	2.59
Houghton	5.36	5.18	Alger	2.34	2.56
Wayne	5.41	4.74	Oceana	2.46	2.55
Kent	4.25	4.59	Isabella	(D)	2.54
Ingham	4.21	4.51	Antrim	2.04	2.54
Arenac	2.78	4.43	Macomb	1.53	2.50
Barry	(D)	4.35	Monroe	2.18	2.49
Iron	3.61	4.26	Presque Isle	1.54	2.48
Wexford	2.86	4.19	Ottawa	2.06	2.46
Emmet	2.56	3.98	Muskegon	2.33	2.40
Cheboygan	3.84	3.83	Tuscola	1.57	2.36
Gogebic	2.60	3.82	Marquette	2.09	2.31
Crawford	3.01	3.81	Washtenaw	2.12	2.31
Clare	4.11	3.81	Mackinac	1.65	2.27
Mecosta	2.96	3.77	Genesee	2.11	2.23
Chippewa	2.18	3.76	Leelanau	(D)	2.15
Cass	2.46	3.66	Montcalm	1.88	2.13
Newaygo	2.75	3.53	Van Buren	(D)	2.13
Saginaw	2.82	3.44	Ogemaw	2.07	2.00
St. Clair	3.09	3.42	St. Joseph	2.23	1.95
Clinton	3.27	3.33	Osceola	1.64	1.91
Berrien	2.70	3.27	Baraga	1.48	1.89
Menominee	(D)	3.23	Ontonagon	1.45	1.77
Charlevoix	2.59	3.18	Midland	1.29	1.50
Shiawassee	2.28	3.15	Luce	1.44	1.43
Huron	2.28	3.10	Alcona	(D)	1.43
Sanilac	1.97	3.08	Allegan	1.03	1.37
Otsego	1.96	3.07	Alpena	(D)	(D)
Kalamazoo	(D)	3.02	Dickinson	1.85	(D)
Manistee	2.63	3.00	Kalkaska	(D)	(D)
Lapeer	2.71	2.97	Keweenaw	(D)	(D)
Lenawee	2.19	2.95			
Delta	3.38	2.95	Michigan	3.92	4.08
Hillsdale	(D)	2.95	United States	5.52	5.84

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D) Withheld to avoid disclosing data for individual companies.

TABLE XXII-8. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN FINANCE, INSURANCE, AND REAL ESTATE: 1980-1981

County	Percentage change 1971-1981	Percentage change 1980-1981	County	Percentage change 1971-1981	Percentage change 1980-1981
Presque Isle	290	26	Sanilac	217	6
Gogebic	176	24	Ottawa	244	6
Hillsdale	(D)	23	Crawford	254	6
Chippewa	175	19	St. Clair	167	6
Isabella	(D)	18	Shiawassee	181	6
Ogemaw	190	14	Alger	149	5
Huron	227	14	Iron	181	5
Houghton	133	14	Montmorency	263	5
Ontonagon	132	13	Iosco	126	5
Wexford	311	13	Schoolcraft	114	5
Mecosta	239	13	Emmet	276	5
Otsego	487	11	Delta	124	4
Grand Traverse	318	11	Lenawee	163	4
Barry	(D)	11	Genesee	157	4
Branch	198	9	Allegan	243	3
Antrim	203	9	Macomb	271	3
Newaygo	172	9	Jackson	129	3
Mason	190	9	Monroe	204	3
Clare	129	9	Berrien	140	3
Osceola	191	9	Van Buren	(D)	3
Gladwin	194	9	Cass	247	3
Livingston	237	9	Benzie	173	3
Arenac	312	9	Luce	155	3
Midland	197	9	Wayne	65	2
Ingham	181	8	Saginaw	184	2
Kalamazoo	(D)	8	Roscommon	159	2
Montcalm	179	8	Oakland	314	2
Tuscola	282	8	Muskegon	136	2
Missaukee	263	8	Lapeer	168	1
Oscoda	(D)	8	Clinton	172	1
Kent	189	8	Lake	196	-1
Ionia	172	8	Cheboygan	149	-1
Mackinac	244	8	St. Joseph	106	-2
Marquette	208	7	Alcona	(D)	(D)
Calhoun	(D)	7	Alpena	(D)	(D)
Manistee	169	7	Baraga	158	(D)
Gratiot	137	7	Dickinson	(D)	(D)
Charlevoix	241	7	Kalkaska	(D)	(D)
Oceana	155	7	Keweenaw	(D)	(D)
Bay	223	7	Leelanau	(D)	(D)
Eaton	576	6			
Washtenaw	217	6	Michigan	138	4
Menominee	(D)	6	United States	172	10

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D) Withheld to avoid disclosing data for individual companies.

TABLE XXII-9. DEPOSITS IN COMMERCIAL BANKS AND BANKING OFFICES IN MICHIGAN, BY TYPE OF DEPOSIT, BY COUNTY: 30 JUNE 1981

(In thousands of dollars)

County	Demand[a]	Savings[a]	Time[a]	State and local government Demand	State and local government Time savings	Total[b]
Alcona	$ 2,697	$ 8,652	$ 13,591	$ 216	$ 822	$ 26,117
Alger	3,931	11,068	19,825	748	1,209	37,144
Allegan	35,298	60,406	102,109	2,858	14,639	216,092
Alpena	16,421	43,164	79,282	2,290	16,613	159,550
Antrim	9,656	22,400	36,592	797	9,189	79,755
Arenac	6,346	19,946	37,374	853	5,312	70,419
Baraga	4,726	10,266	16,201	1,284	1,081	33,812
Barry	13,763	28,724	34,274	3,282	7,183	87,563
Bay	79,067	141,837	207,292	9,187	11,106	452,366
Benzie	5,818	15,331	27,393	838	2,775	52,600
Berrien	115,382	124,127	286,193	9,586	57,057	596,735
Branch	21,251	39,092	81,779	2,897	19,706	166,351
Calhoun	95,161	133,989	207,130	14,211	43,679	505,774
Cass	20,335	32,994	65,007	3,270	12,736	135,776
Charlevoix	14,820	26,706	51,700	1,595	5,631	101,330
Cheboygan	11,650	27,351	44,027	1,299	3,960	89,493
Chippewa	15,560	36,278	65,338	6,815	6,287	131,288
Clare	12,239	27,692	50,595	4,117	5,207	100,451
Clinton	18,210	37,673	70,202	2,680	21,035	155,161
Crawford	6,219	7,848	17,028	418	3,895	36,036
Delta	23,670	49,202	94,325	2,717	21,674	192,701
Dickinson	20,911	32,465	60,808	2,249	3,977	121,252
Eaton	39,676	73,136	111,768	2,442	17,729	246,926
Emmet	24,148	39,390	101,266	3,389	12,281	183,032
Genesee	257,379	570,486	894,024	33,652	144,197	1,926,899

TABLE XXII-9. DEPOSITS IN COMMERCIAL BANKS AND BANKING OFFICES IN MICHIGAN, BY TYPE OF DEPOSIT, BY COUNTY: 30 JUNE 1981 (cont.)

(In thousands of dollars)

County	Demand[a]	Savings[a]	Time[a]	State and local government: Demand	State and local government: Time savings	Total[b]
Gladwin	$ 6,654	$ 19,140	$ 31,820	$ 1,262	$ 6,452	$ 65,769
Gogebic	12,366	33,217	58,190	1,837	4,697	110,213
Grand Traverse	59,965	83,515	184,434	2,930	25,799	362,603
Gratiot	28,032	61,295	102,876	5,468	9,401	208,461
Hillsdale	22,154	44,982	96,419	2,416	10,928	178,319
Houghton	19,686	37,551	64,617	2,190	7,221	132,530
Huron	33,847	63,963	144,507	3,218	11,566	258,299
Ingham	302,258	307,802	548,968	16,399	53,499	1,266,732
Ionia	20,164	46,952	88,527	2,411	8,679	167,830
Iosco	11,601	30,706	42,570	2,158	7,024	95,377
Iron	6,628	21,945	39,635	1,560	3,476	73,769
Isabella	30,189	46,891	78,484	3,745	4,377	166,297
Jackson	100,870	147,761	196,261	10,356	36,311	497,173
Kalamazoo	170,915	191,083	311,159	10,950	47,579	742,546
Kalkaska	5,443	9,840	17,268	347	5,603	38,740
Kent	446,514	498,675	1,044,986	17,675	170,520	2,254,109
Keweenaw	813	1,959	1,462	94	873	5,201
Lake	2,111	5,016	3,728	873	1,285	13,185
Lapeer	28,178	57,703	109,841	11,390	15,534	224,615
Leelanau	5,371	12,795	24,393	522	5,550	48,949
Lenawee	60,019	118,855	204,679	7,741	25,935	420,662
Livingston	41,175	69,790	104,281	2,979	19,240	242,479
Luce	2,562	6,811	9,555	411	2,888	22,465
Mackinac	6,197	11,683	18,325	1,444	3,358	41,372
Macomb	389,967	786,191	1,258,250	29,124	181,481	2,667,290

TABLE XXII-9. DEPOSITS IN COMMERCIAL BANKS AND BANKING OFFICES IN MICHIGAN, BY TYPE OF DEPOSIT, BY COUNTY: 30 JUNE 1981 (cont.)

(In thousands of dollars)

County	Demand[a]	Savings[a]	Time[a]	State and local government Demand	State and local government Time savings	Total[b]
Manistee	$ 11,229	$ 46,550	$ 54,963	$ 2,303	$ 8,222	$ 123,879
Marquette	35,835	71,589	152,572	4,424	34,999	303,235
Mason	16,161	27,131	60,773	789	4,853	111,011
Mecosta	16,159	28,997	54,076	1,882	11,437	113,234
Menominee	13,821	30,931	51,713	1,809	5,710	104,805
Midland	43,596	77,873	127,390	9,109	30,382	291,743
Missaukee	5,076	11,990	20,961	735	2,033	41,566
Monroe	51,910	118,264	182,843	6,887	39,309	404,289
Montcalm	25,750	46,676	101,782	4,422	11,957	192,633
Montmorency	3,665	12,895	22,588	532	1,546	41,487
Muskegon	87,779	172,394	274,316	5,765	25,197	572,487
Newaygo	19,595	27,113	55,843	2,958	7,812	114,157
Oakland	976,120	1,311,683	2,410,573	43,515	299,536	5,091,814
Oceana	8,855	17,228	32,819	1,003	6,582	66,830
Ogemaw	9,814	21,853	32,694	1,535	4,532	70,887
Ontonagon	5,526	11,574	17,194	387	2,806	37,835
Osceola	8,019	20,771	34,754	1,388	6,958	72,357
Oscoda	2,480	7,774	12,158	498	1,623	24,592
Otsego	12,684	23,987	31,473	393	7,399	76,836
Ottawa	110,405	172,956	332,811	8,345	60,350	690,065
Presque Isle	6,139	15,380	29,976	1,329	2,594	55,552
Roscommon	9,883	29,294	49,727	1,136	4,500	95,161
Saginaw	155,439	268,337	378,785	10,305	61,074	897,962
St. Clair	81,016	161,255	324,780	12,985	31,680	618,094
St. Joseph	37,270	63,470	112,649	3,693	12,319	230,879

TABLE XXII-9. DEPOSITS IN COMMERCIAL BANKS AND BANKING OFFICES IN MICHIGAN, BY TYPE OF DEPOSIT, BY COUNTY: 30 JUNE 1981 (cont.)

(In thousands of dollars)

County	Demand[a]	Savings[a]	Time[a]	State and local government Demand	State and local government Time savings	Total[b]
Sanilac	$ 19,230	$ 54,864	$ 109,552	$ 3,583	$ 12,302	$ 200,777
Schoolcraft	5,534	13,142	26,041	1,256	3,989	50,378
Shiawasse	30,319	75,079	138,404	9,721	12,083	266,011
Tuscola	25,564	64,320	117,650	3,443	14,670	227,390
Van Buren	29,288	58,838	93,529	5,073	15,856	204,027
Washtenaw	202,956	278,363	392,024	19,479	88,098	992,636
Wayne	3,328,501	3,122,908	6,138,677	260,840	698,003	14,664,221
Wexford	16,725	42,854	96,570	1,258	8,241	167,191
TOTAL	8,100,356	10,843,767	19,631,318	690,970	2,656,908	43,425,635

SOURCE: Federal Deposit Insurance Corporation, Banks and Branches June 30, 1981, Summary of Deposits in all Commercial and Mutual Savings Banks, (Washington, D.C.: annually).

a. Individuals, partnerships, and corporations.

b. Includes U.S. government deposits, deposits of foreign governments, certified checks, and other types of deposits not shown separately.

TABLE XXII-10. NUMBER, ASSETS, FIRST MORTGAGE LOANS, AND SAVINGS CAPITAL OF MICHIGAN INSURED SAVINGS AND LOAN ASSOCIATIONS, 31 DECEMBER: 1952-1980

(In thousands of dollars)

Year	Number of associations	Total assets	Mortage loans and contract	Savings capital
1952	72	537,695	423,902	468,165
1953	73	650,738	513,318	572,277
1954	73	772,502	612,860	680,026
1955	73	919,084	753,403	805,887
1956	74	1,057,135	844,050	928,824
1957	74	1,250,075	974,758	1,121,500
1958	73	1,434,317	1,115,464	1,281,532
1959	73	1,643,904	1,292,979	1,456,198
1960	73	1,847,920	1,497,207	1,650,087
1961	73	2,054,557	1,650,398	1,830,714
1962	73	2,356,491	1,893,083	2,100,912
1963	72	2,705,419	2,207,693	2,400,485
1964	72	3,093,414	2,557,042	2,773,569
1965	72	3,340,838	2,845,584	2,944,913
1966	71	3,424,042	2,925,831	2,996,855
1967	71	3,719,205	3,174,279	3,285,199
1968	70	3,979,388	3,417,190	3,508,187
1969	70	4,288,115	3,695,319	3,677,844
1970	68	4,830,457	4,094,409	4,205,130
1971	65	5,769,871	4,989,408	5,012,060
1972	65	6,842,107	5,798,053	6,043,166
1973	65	7,691,953	6,596,649	6,765,835
1974	66	8,478,123	7,224,272	7,334,501
1975	67	9,753,163	8,092,134	8,642,753
1976	66	11,364,523	9,379,124	10,180,818
1977	66	13,263,886	11,052,458	11,768,151
1978	65	15,260,981	12,990,752	13,252,982
1979	65	16,924,215	14,645,621	14,447,034
1980	63	18,430,290	15,437,779	15,936,987

SOURCE: Federal Home Loan Bank Board, Trends in the Savings and Loan Field, 1951 through 1970 (name was changed in 1971); Asset and Liability Trends, 1971 through 1977 (Washington, D.C.: annually), Table 8, 1977; Federal Home Loan Bank Board, Savings & Home Financing Source Book, (Washington, D.C.: annually), Table 8, 1979, 1980 and 1981, and special release.

TABLE XXII-11. TOTAL ASSETS OF SAVING AND LOAN ASSOCIATIONS IN MICHIGAN, BY COUNTY: 31 DECEMBER 1979, 1980, AND 1981

County and association[a]	Total assets		
	1979	1980	1981
Alpena			
First Federal S&L, Alpena	44,235,633	49,360,292	52,517,738
Barry			
Hastings S&L, Hastings	28,743,782	30,696,839	31,390,835
Bay			
Mutual S&L, Bay City	412,046,207	451,381,396	452,469,426
Berrien			
First Federal S&L, Niles	131,540,197	b	b
LaSalle Federal S&L, Buchanan	86,330,526	96,021,472	95,596,131
New Buffalo S&L, New Buffalo	26,315,423	27,334,848	29,726,740
People Savings Assn., Benton Harbor	122,767,899	121,391,925	121,092,513
St. Joseph S&L, St. Joseph	93,726,171	118,107,185	118,094,835
Branch			
Branch County Federal S&L, Coldwater	58,291,694	61,142,891	61,507,626
Calhoun			
Homestead S&L, Albion	17,451,098	20,459,094	20,967,777
Marshall S&L, Marshall	18,280,195	21,315,172	21,678,032
Peoples S&L, Battle Creek	90,593,730	98,367,094	97,540,730
Cass			
First Savings Assn., Dowagiac	56,781,594	60,105,521	b
Eaton			
Eaton Federal S&L, Charlotte	60,100,050	67,934,275	70,080,425
Genesee			
First Federal S&L, Flint	204,991,470	214,872,296	b
Grand Traverse			
Northwestern S&L, Traverse City	68,075,718	75,224,766	76,653,584
Houghton			
Detroit & Northern S&L, Hancock	845,849,231	912,121,210	917,776,000
Ingham			
Capitol S&L, Lansing	471,085,538	489,532,926	479,492,746
First State Savings Assn., East Lansing	66,024,901	67,278,224	b
Union S&L, Lansing	112,967,951	120,697,927	117,425,066
Ionia			
Belding S&L, Belding	11,612,514	12,449,329	b
Iron			
Iron S&L, Iron River	5,845,015	6,263,206	6,463,575
Jackson			
First Federal S&L, Jackson	100,465,909	107,954,006	106,363,574
Security S&L, Jackson	135,829,995	147,703,961	148,521,898
Kalamazoo			
Fidelity Federal S&L, Kalamazoo	146,643,031	161,904,404	166,676,251
First Federal S&L, Kalamazoo	298,555,578	329,121,385	340,289,702
Kalamazoo S&L, Kalamazoo	145,131,326	b	b

TABLE XXII-11. TOTAL ASSETS OF SAVING AND LOAN ASSOCIATIONS IN MICHIGAN, BY COUNTY: 31 DECEMBER 1979, 1980, AND 1981 (cont.)

County and association[a]	Total assets 1979	 1980	 1981
Kent			
Grand Rapids Mutual Federal S&L, Grand Rapids	177,547,693	187,965,573	183,828,252
Kentwood S&L, Kentwood	39,895,416	43,926,971	b
Lowell S&L, Lowell[c]	6,485,[illegible]65	b	b
Mutual Home Federal S&L, Grand Rapids	303,319,227	318,424,336	316,574,401
West Side Federal S&L, Grand Rapids	60,465,255	64,330,155	61,826,406
Lenawee			
First Federal S&L, Adrian	142,908,180	156,791,719	156,127,047
Livingston			
First Federal S&L, Howell	136,011,905	146,975,081	135,529,494
Macomb			
Macomb S&L, St. Clair Shores	15,414,675	16,706,385	18,172,602
Mason			
Ludington Federal S&L, Ludington	27,987,709	29,247,612	29,480,617
Midland			
Wolverine Federal S&L, Midland	66,039,133	67,245,821	67,616,960
Monroe			
Peoples Federal S&L, Monroe	252,369,130	272,051,214	282,136,379
Muskegon			
Muskegon Federal S&L, Muskegon	217,314,271	227,041,521	233,892,955
Oakland			
American Federal S&L, Southfield	869,585,789	865,763,274	867,408,926
First Farmington S&L, Farmington	27,106,472	b	b
First Federal S&L of Oakland, Pontiac	514,846,589	626,984,998	751,787,660
Metropolitan Savings Assn., Farmington	366,733,944	412,931,360	424,227,116
Standard Federal S&L, Troy	2,871,660,145	3,317,190,580	3,474,520,821
Surety Federal S&L, Southfield	148,973,804	145,452,184	b
Ottawa			
Ottawa S&L, Holland	144,598,510	161,381,682	164,152,767
Saginaw			
Family Federal S&L, Saginaw	371,157,180	383,596,428	420,375,021
First S&L, Saginaw/United Federal S&L Assn.	534,656,883	622,207,205	605,578,430
Landmark S&L, Saginaw	49,752,205	50,921,905	b
St. Clair			
Citizens Federal S&L, Port Huron	190,019,654	201,543,407	201,835,794
St. Joseph			
Sturgis S&L, Sturgis	47,243,969	48,588,717	47,658,028
Three Rivers S&L, Three Rivers	47,243,969	68,167,986	65,916,776
Van Buren			
Van Buren S&L, South Haven	28,041,013	b	b
Central State S&L, Mt. Clemens	d	6,552,148	9,466,633

TABLE XXII-11. TOTAL ASSETS OF SAVING AND LOAN ASSOCIATIONS IN MICHIGAN, BY COUNTY: 31 DECEMBER 1979, 1980, AND 1981 (cont.)

County and association[a]	Total assets		
	1979	1980	1981
Washtenaw			
Great Lakes Federal S&L, Ann Arbor[b]	750,851,402	825,763,597	899,933,324
First Savings Assn., Ypsilanti	19,263,172	20,886,551	22,072,339
Michigan S&L, Ann Arbor	47,468,364	60,631,356	60,965,867
Wayne			
Colonial Federal S&L, Grosse Pte. Woods	208,148,985	208,251,461	208,357,950
Dearborn Federal S&L, Dearborn	135,512,573	142,454,833	140,013,885
Detroit Federal S&L, Detroit	85,606,894	109,744,942	109,113,325
Down River Federal S&L, Taylor	345,227,644	362,633,313	380,452,348
First Federal S&L, Dearborn	187,296,082	198,076,131	235,901,889
First Federal S&L, Detroit	3,278,067,205	3,687,233,719	3,953,244,262
Guaranty Federal S&L, Wyandotte	145,088,384	148,908,790	143,621,520
Home Federal S&L, Detroit	23,439,412	22,739,494	21,664,461
Peoples Federal S&L, Detroit	172,983,289	175,069,775	b

SOURCE: Roster of Members, Federal Home Loan Bank of Indianapolis, (Indianapolis: annually).

NOTE: S&L stands for savings and loan.

a. There are no savings and loan associations headquartered in counties not listed, although there may be branch offices of Michigan's 65 savings and loan associations in these counties.

b. Merged.

c. Lowell Savings and Loan was uninsured.

d. Central State Savings and Loan formed during 1980.

TABLE XXII-12. MORTGAGE LOANS MADE BY INSURED SAVINGS AND LOAN ASSOCIATIONS IN MICHIGAN: 1967-1981

(In thousands of dollars)

Year	Home construction	Home purchase	Other purposes: Construction and purchase of other real property	Other purposes: Refinancing and all other	Total loans closed
1967	107,003	319,044	41,728	86,821	554,596
1968	115,835	345,650	46,189	85,213	592,886
1969	113,206	337,682	60,902	80,226	592,016
1970	97,045	362,068	104,978	83,050	647,140
1971	198,218	689,750	137,024	201,379	1,226,371
1972	232,521	825,513	175,907	240,319	1,474,260
1973	281,041	824,915	142,900	170,910	1,419,766
1974	166,197	681,288	129,048	161,327	1,137,860
1975	174,355	924,529	127,557	200,978	1,427,418
1976	257,075	1,381,946	145,396	269,399	2,053,816
1977	392,000	1,997,000	75,000	357,000	2,821,000
1978	471,000	2,341,000	69,000	356,000	3,237,000
1979	459,000	2,081,000	43,000	298,000	2,881,000
1980	228,000	1,079,000	80,000	253,000	1,579,000
1981	104,000	512,00	23,000	162,000	803,000

SOURCE: Federal Home Loan Bank Board, *Savings and Home Financing Source Book*, 1967 through 1981 (Washington, D.C.: annually).

TABLE XXII-13. NUMBER OF INSURED SAVINGS AND LOAN ASSOCIATIONS LOCATED AND OPERATING IN MICHIGAN, BY COUNTY: 30 SEPTEMBER 1981

County	Associations	Offices	County	Associations	Offices
Alcona	0	0	Lake	0	0
Alger	0	0	Lapeer	3	4
Allegan	5	6	Leelanau	0	0
Alpena	2	3	Lenawee	2	8
Antrim	0	0	Livingston	3	8
Arenac	1	1	Luce	0	0
Baraga	0	0	Mackinac	0	0
Barry	4	4	Macomb	12	49
Bay	3	11	Manistee	1	1
Benzie	0	0	Marquette	1	2
Berrien	6	23	Mason	2	2
Branch	2	4	Mecosta	1	2
Calhoun	5	14	Menominee	1	1
Cass	3	4	Midland	3	7
Charlevoix	2	2	Missaukee	0	0
Cheboygan	1	1	Monroe	3	10
Chippewa	1	1	Montcalm	1	1
Clare	2	2	Montmorency	0	0
Clinton	2	2	Muskegon	4	9
Crawford	1	1	Newaygo	1	1
Delta	1	1	Oakland	12	80
Dickinson	1	1	Oceana	1	1
Eaton	8	12	Ogemaw	1	1
Emmet	2	2	Ontonagon	0	0
Genesee	4	20	Osceola	1	1
Gladwin	1	2	Oscoda	1	1
Gogebic	1	1	Otsego	1	1
Grand Traverse	2	3	Ottawa	5	11
Gratiot	2	3	Presque Isle	1	1
Hillsdale	2	3	Roscommon	1	1
Houghton	1	2	Saginaw	6	22
Huron	2	4	St. Clair	2	10
Ingham	5	17	St. Joseph	5	8
Ionia	3	4	Sanilac	2	3
Iosco	2	2	Schoolcraft	0	0
Iron	1	1	Shiawassee	2	5
Isabella	2	2	Tuscola	3	3
Jackson	3	8	Van Buren	7	9
Kalamazoo	6	23	Washtenaw	5	20
Kalkaska	1	1	Wayne	16	120
Kent	7	2	Wexford	2	2
Keweenaw	0	0			

SOURCES: Federal Home Loan Bank Board, *FSLIC Savings and Loan Associations, September 30, 1981, Summary of Savings Accounts by Geographic Area* (Washington D.C.: 1981), Table 5.

TABLE XXII-14. STATE AND FEDERALLY CHARTERED CREDIT UNIONS IN MICHIGAN: 31 DECEMBER 1967-1981

Year	Number	Membership[a]	Loans to members[a]	Assets
			(In thousand of dollars)	
		State		
1967	814	941,305	592,196	746,410
1968	818	1,030,784	694,117	858,573
1969	810	1,112,939	777,181	973,330
1970	787	1,175,788	814,870	1,096,997
1971	754	1,199,578	837,039	1,248,321
1972	724	1,249,293	913,465	1,402,713
1973	706	1,303,827	1,014,893	1,501,612
1974	679	1,309,000	1,059,746	1,603,246
1975	656	1,374,000	1,179,342	1,820,193
1976	630	1,417,587	1,338,991	1,910,592
1977	611	1,498,260	1,744,297	2,297,283
1978	598	1,587,781	1,994,985	2,600,450
1979	584	1,631,809	1,963,821	2,712,000
1980	572	1,664,065	1,785,952	2,648,387
1981	560	1,721,655	1,842,651	3,002,950
		Federal		
1967	368	567,350	329,368	417,566
1968	366	581,189	366,425	447,004
1969	371	610,448	408,478	483,522
1970	372	631,940	415,800	507,796
1971	364	654,871	461,374	567,274
1972	368	690,887	520,926	644,033
1973	363	737,751	591,280	724,900
1974	365	779,534	632,718	784,452
1975	367	809,200	710,035	877,520
1976	358	874,040	861,099	1,018,098
1977	352	962,801	1,045,652	1,193,701
1978	350	1,099,838	1,216,740	1,371,054
1979	345	1,195,568	1,211,426	1,437,921
1980	331	921,310	1,058,326	1,545,872
1981	303	1,251,615	1,066,466	1,557,838

SOURCE: National Credit Union Administration, *Annual Report*, (Washington, D.C.: annually), Michigan Department of Commerce, Financial Institutions Bureau, *Abstracts of Reports of Credit Unions*, 1967 through 1976; and Michigan Department of Commerce, Financial Institutions Bureau, *Annual Report*, 1977 through 1981 (Lansing: annually).

a. Excludes Central Credit Union of Michigan.

TABLE XXII-15. NUMBER, LOANS OUTSTANDING, AND AVERAGE INVESTED ASSETS OF MICHIGAN SMALL LOAN COMPANIES: 1960-1981

Year	Number of licensees	Loans outstanding 31 Decembr[a]	Average invested assets[a]
1960	548	177,036	187,369
1961	584	177,369	188,741
1962	603	181,240	186,000
1963	608	248,081	205,070
1964	634	281,583	271,983
1965	655	304,700	301,897
1966	675	323,872	323,615
1967	677	334,674	338,073
1968	691	345,413	347,609
1969	676	357,969	362,409
1970	626	346,625	365,306
1971	595	332,115	381,379
1972	597	395,160	397,046
1973	593	412,348	433,592
1974	550	391,783	445,643
1975	461	349,687	406,339
1976	415	326,921	356,701
1977	387	332,526	351,956
1978	375	341,166	358,333
1979	350	422,111	401,148
1980	271	342,213	402,574
1981	165	231,386	302,724

SOURCE: Michigan Department of Commerce, Financial Institutions Bureau, *Analysis and Recapitulation of Reports of Regulatory Loan Licensees*, 1974 and 1978 (Lansing: annually), p. 5 (1978); Michigan Department of Commerce, *Financial Institutions Bureau*, Annual Report 1981, p. 93.

a. In thousands of dollars.

TABLE XXII-16. CONSOLIDATED BALANCE SHEET OF MICHIGAN SMALL LOAN COMPANIES: 31 DECEMBER 1979-1981

(In thousands of dollars)

ASSETS	1979	1980	1981
Cash on hand and in bank	1,803	1,351	1,025
Loans receivable (net of reserve for bad debts)	422,111	342,213	231,386
Real estate (less depreciation)	271	314	265
Furniture, fixtures, and equipment (less depreciation)	1,335	1,267	834
Deferred charges and prepaid expenses	1,493	1,023	624
Other assets	1,264	1,059	979
Total assets used in the Regulatory Loan Business	428,277	347,227	235,113
Other assets not used in the Regulatory Loan Business	86,786	72,960	67,890
TOTAL ASSETS	515,063	420,187	303,003
LIABILITIES AND CAPITAL			
Accounts and notes payable:			
Banks	8,367	8,434	5,526
Due to parent company of affiliate	310,212	244,141	160,479
Other short-term notes and accounts	18,236	15,673	12,589
Bonds and long-term notes	10,776	8,563	6,999
Other liabilities:			
Accrued expenses	642	536	482
Dealer reserves	1,498	1,552	1,375
Other	287	181	205
Expense reserves:			
Reserves for licenses and taxes	483	108	(448)
Other expense reserves	139	160	106
Reserve for bad debts	10,885	8,370	6,502
Branch office capital	126,201	106,810	92,266
Net worth	235	218	239
Capital stock:			
Preferred	1,154	1,131	915
Common	3,520	2,807	2,156
Appropriated surplus or capital reserves	3,947	11,855	10,629
Earned surplus (including undivided profits)	18,481	9,648	2,983
TOTAL LIABILITIES AND CAPITAL	515,063	420,187	303,003

SOURCE: Michigan Department of Commerce, Financial Institutions Bureau, Analysis and Recapitulation of Reports of Regulatory Loan Licensees, (Lansing: 1976), p. 3; and Michigan Department of Commerce, Financial Institutions Bureau, Annual Report, 1978 (Lansing: annually), p. 85.

TABLE XXII-17. LIFE INSURANCE IN FORCE IN MICHIGAN AND THE UNITED STATES: 1967-1981

(In millions of dollars)

Year	Ordinary	Group	Industrial	Credit	Total
		Michigan			
1967	23,202	23,180	1,381	3,639	51,402
1968	25,177	25,895	1,377	4,060	56,509
1969	27,097	27,936	1,353	4,415	60,801
1970	28,846	31,076	1,321	4,510	65,753
1971	31,012	34,615	1,340	5,131	72,098
1972	33,314	37,602	1,340	5,847	78,103
1973	35,867	43,569	1,318	5,460	86,214
1974	38,188	49,309	1,287	5,306	94,090
1975	40,093	55,184	1,265	5,494	102,036
1976	43,323	61,538	1,218	5,765	111,844
1977	46,995	67,763	1,187	6,031	121,976
1978	51,528	77,264	1,170	7,375	137,337
1979	56,488	89,358	1,187	7,689	154,722
1980	60,406	95,268	1,169	6,477	163,320
1981	65,020	103,999	1,110	6,744	176,873
		United States			
1967	584,570	394,501	39,215	61,535	1,079,821
1968	633,392	442,778	38,827	68,357	1,183,354
1969	682,453	488,864	38,614	74,598	1,284,529
1970	734,730	551,357	38,644	77,392	1,402,123
1971	792,318	589,883	39,202	81,931	1,503,334
1972	853,911	640,689	39,975	93,410	1,627,985
1973	928,192	708,322	40,632	101,154	1,778,300
1974	1,009,038	827,018	39,441	109,623	1,985,120
1975	1,083,421	904,695	39,423	112,032	2,139,571
1976	1,177,672	1,002,647	39,175	123,569	2,343,063
1977	1,289,321	1,115,047	39,045	139,402	2,582,815
1978	1,425,095	1,243,994	38,080	163,081	2,870,250
1979	1,585,878	1,419,418	37,794	179,250	3,222,340
1980	1,760,474	1,579,355	35,994	165,215	3,541,038
1981	1,978,080	1,888,612	34,547	162,356	4,063,595

SOURCE: American Council of Life Insurance, Life Insurance Fact Book, (New York, N.Y.: annually).

TABLE XXII-18. PAYMENTS TO LIFE INSURANCE BENEFICIARIES IN MICHIGAN AND THE UNITED STATES: 1972-1981

	Ordinary		Group		Industrial		Total	
Year	Number (1,000)	Amount ($1,000)	Number (1,000)	Amount ($1,000)	Number (1,000)	Amount ($1,000)	Number (1,000)	Amount ($1,000)
				Michigan				
1972	40.3	143,800	46.6	224,200	28.9	15,600	115.8	383,600
1973	41.5	154,800	51.2	233,900	28.8	16,100	121.5	404,800
1974	41.3	158,800	52.9	250,200	27.0	15,600	121.2	424,600
1975	42.0	162,100	51.5	254,600	27.1	15,600	120.6	432,300
1976	41.7	165,900	50.1	265,000	26.1	15,500	117.9	446,400
1977	43.8	179,100	49.2	307,100	28.6	17,100	121.6	503,300
1978	43.1	190,600	50.2	324,700	26.6	16,600	119.9	531,900
1979	42.3	196,500	48.9	333,800	24.9	15,900	116.1	546,200
1980	42.3	202,700	48.6	370,800	25.4	16,500	116.3	590,000
1981	43.1	218,400	48.6	373,800	23.2	16,300	114.9	608,500
				United States				
1972	1,036	4,003,700	810	3,536,700	1,040	466,600	2,886	8,007,000
1973	1,112	4,289,400	884	3,805,900	1,018	476,700	3,014	8,572,000
1974	1,097	4,382,000	938	4,031,200	974	471,900	3,009	8,885,100
1975	1,098	4,473,600	906	4,256,000	922	462,500	2,926	9,192,100
1976	1,110	4,665,400	882	4,452,900	933	475,000	2,925	9,593,300
1977	1,098	4,907,500	860	4,812,900	910	475,300	2,869	10,195,700
1978	1,141	5,338,000	892	5,281,900	927	487,800	2,961	11,107,700
1979	1,120	5,576,400	893	5,708,900	881	480,400	2,894	11,765,700
1980	1,184	6,119,800	910	6,271,000	873	493,600	2,967	12,884,400
1981	1,221	6,662,600	981	7,014,400	806	447,000	3,008	14,154,000

SOURCE: American Council of Life Insurance, Life Insurance Fact Book, (New York, N.Y.: annually).

TABLE XXII-19. ASSETS, CAPITAL, AND SURPLUS OF MICHIGAN INSURANCE COMPANIES: 31 DECEMBER 1979, 1980, AND 1981.

Type of company	1979			1980			1981		
	Number of companies	Admitted assets ($1,000)	Capital and surplus ($1,000)	Number of companies	Admitted assets ($1,000)	Capital and surplus ($1,000)	Number of companies	Admitted assets ($1,000)	Capital and surplus ($1,000)
Property & liability ins.									
Stock	19	1,569,088	491,693	21	1,765,164	614,922	22	1,849,027	612,920
Mutual	28	1,692,002	459,164	28	1,917,401	553,495	28	2,090,274	341,481
Reciprocal exchanges	1	641,895	167,291	1	705,881	176,841	1	761,898	177,073
Farm mutuals	5	1,834	1,636	5	2,013	1,814	5	2,286	2,066
Funds and pools	n.a.	n.a.	n.a.	3	275,236	54,120	3	248,833	66,459
Life insurance									
Stock	22	1,547,704	246,107	22	1,612,452	291,703	23	1,990,029	325,079
Mutual	5	432,284	19,585	4	491,275	24,101	4	553,803	27,646
Fraternal benefit societies	3	131,496	24,831	3	134,427	26,020	3	145,912	28,708
Nonprofit medical, hospital, and dental organizations, and associations	3	1,020,613	318,566	4	948,864	254,907	4	865,625	206,017

SOURCE: Michigan Department of Licensing and Regulation, Insurance Bureau, Annual Statistical Report.

TABLE XXII-20. SUMMARY OF MICHIGAN PREMIUMS AND LOSSES OF COMPANIES AND SOCIETIES OPERATING IN MICHIGAN: 1979 AND 1980.

(Thousands of dollars)

Type of company	Total direct Michigan premiums[a] 1980	Total direct Michigan premiums[a] 1981	Total direct Michigan losses[b] 1980	Total direct Michigan losses[b] 1981
Property and liability insurance companies				
Funds and pools, Michigan	91,282	68,091	79,684	55,433
Stock companies, Michigan	476,423	558,609	315,389	354,457
Stock companies, foreign	2,063,098	1,922,526	1,341,203	1,324,023
Mutual companies, Michigan	592,786	587,182	380,968	386,467
Mutual companies, foreign	591,724	567,959	356,634	387,496
Alien companies-U.S. branches	13,340	13,532	8,575	7,438
Reciprocal exchanges, Michigan	378,531	392,400	354,988	403,945
Reciprocal exchanges, foreign	71,105	78,326	43,050	55,517
TOTAL	4,278,289	4,188,625	2,880,491	2,974,776
Life insurance companies				
Stock companies				
Life insurance operation, Michigan	124,873	164,298	61,209	87,062
Life insurance operation, foreign	576,943	686,619	374,225	476,661
Casualty operations, Michigan	65,848	79,074	60,401	69,926
Casualty operations, foreign	581,284	632,537	519,112	531,273
Mutual companies				
Life insurance operations, Michigan	39,924	22,871	21,828	14,742
Life insurance operations, foreign	972,025	973,087	739,349	803,052
Casualty operations, Michigan	68,392	67,052	61,603	60,773
Casualty operations, foreign	580,014	417,902	568,230	390,748
Alien companies-U.S. branches				
Life insurance operations	96,608	105,540	63,179	78,938
Casualty operations	45,153	43,044	39,036	36,773
Fraternal benefit societies				
Life insurance operations, Michigan	4,124	3,662	1,201	1,054
Life insurance operations, foreign	40,116	45,632	9,583	11,565
Casualty operations, Michigan	33	60	12	12
Casualty operations, foreign	2,593	2,887	1,440	1,593
Nonprofit associations				
Life insurance operations	37	38	23	9
Casualty (excluding Blue Cross)	131,488	147,532	77,596	84,717
Blue Cross-Blue Shield of Michigan	2,486,793	2,640,044	2,388,175	2,579,967
TOTAL LIFE INSURANCE OPERATIONS	1,854,650	2,001,747	1,270,597	1,473,083
TOTAL CASUALTY OPERATIONS	3,961,598	4,030,132	3,715,605	3,755,782

SOURCE: Michigan Department of Licensing & Regulation, Insurance Bureau, *Annual Statistical Report 1979 and 1980* (Lansing: 1980 and 1981).

a. Casualty premiums are premiums earned.

b. Property, liability, and casualty losses are losses incurred. Life losses are losses paid.

TABLE XXII-21. RESIDENTIAL AND NONRESIDENTIAL MORTGAGES OWNED BY U.S. LIFE INSURANCE COMPANIES IN MICHIGAN AND THE UNITED STATES: 1967-1981

Year	Farm	Nonfarm F.H.A.	Nonfarm V.A.	Nonfarm conventional	Total
			Michigan (In thousands of dollars)		
1967	45,500	439,500	154,100	1,493,200	2,132,300
1968	43,200	436,900	144,000	1,541,700	2,165,800
1969	38,200	427,200	131,500	1,605,200	2,202,100
1970	36,600	407,000	119,700	1,696,800	2,260,100
1971	35,200	369,400	106,700	1,747,200	2,258,500
1972	33,400	331,900	95,600	1,815,500	2,276,400
1973	31,400	298,300	82,900	1,904,000	2,316,600
1974	30,800	227,100	74,600	2,040,700	2,423,200
1975	34,800	254,100	66,500	2,096,900	2,452,300
1976	49,400	228,500	59,500	2,146,800	2,484,200
1977	50,400	204,700	52,000	2,461,300	2,768,400
1978	64,700	192,800	44,800	2,562,700	2,865,000
1979	75,900	152,400	49,000	2,842,000	3,110,300
1980	79,600	141,000	35,800	3,038,800	3,295,000
1981	80,400	131,500	32,000	3,117,300	3,361,200
			United States (In millions of dollars)		
1967	5,569	12,672	6,122	43,153	67,516
1968	5,801	12,469	5,954	45,749	69,973
1969	5,773	12,271	5,701	48,282	72,027
1970	5,649	12,001	5,394	51,331	74,375
1971	5,601	11,336	5,004	53,555	75,496
1972	5,678	10,512	4,660	56,098	76,948
1973	5,996	9,740	4,402	61,231	81,369
1974	6,327	9,115	4,178	66,614	86,234
1975	6,753	8,502	3,903	70,009	89,167
1976	7,425	7,838	3,603	72,686	91,552
1977	8,842	7,182	3,348	77,476	96,848
1978	10,499	6,705	3,164	85,799	106,167
1979	12,184	6,372	2,975	96,890	118,421
1980	12,958	6,066	2,781	109,275	131,080
1981	13,100	5,651	2,590	116,406	137,747

SOURCE: American Council of Life Insurance, Life Insurance Fact Book, 1968 through 1982 (New York: annually).

TABLE XXII-22. NUMBER OF STOCKBROKER AND SECURITIES DEALER FIRMS IN MICHIGAN AND THE UNITED STATES: 30 SEPTEMBER 1967-1981

	Michigan				
Year	Sole proprietorships	Partnerships	Corporations[a]	Total	Total U.S.
1967	11	14	44	69	4,128
1968	16	10	46	72	4,355
1969	15	10	49	74	4,755
1970	17	9	55	81	5,187
1971	9	6	56	71	4,901
1972	8	5	54	67	4,968
1973	8	4	54	66	4,373
1974	8	3	52	63	3,982
1975	8	4	44	56	3,546
1976	5	5	46	56	5,380
1977	6	5	49	60	5,725
1978	6	4	45	55	6,025
1979	5	4	48	57	6,226
1980	8	4	54	66	6,730
1981	7	5	59	71	7,423

SOURCE: Securities and Exchange Commission, Annual Report, 1967 through 1981 (Washington, D.C.: annually).

a. Includes all forms of organizations other than sole proprietorships and partnerships.

TABLE XXII-23. NUMBER OF SHAREHOLDERS OF PUBLIC CORPORATIONS IN MICHIGAN AND THE UNITED STATES, SELECTED YEARS: 1952-1981

(In thousands of persons)

Year	Michigan	United States
1952	n.a.	6,490
1956	370	8,604
1959	625	12,391
1962	794	16,867
1965	946	19,963
1970	1,403	30,612
1975	1,517	25,270
1980	1,349	30,200
1981	1,385	32,260

SOURCE: New York Stock Exchange, Fact Book, (New York, N.Y.: annually).

n.a. not available.

TABLE XXII-24. SALES OF SERIES E AND H SAVINGS BONDS IN MICHIGAN AND THE UNITED STATES: FISCAL YEARS 1962-1980

(In thousands of dollars)

Fiscal year	Sales		Fiscal year	Sales	
	United States	Michigan		United States	Michigan
1962	4,421,490	238,795	1972	5,939,037	455,433
1963	4,518,035	242,017	1973	6,513,577	452,513
1964	4,656,422	259,724	1974	6,428,766	446,422
1965	3,534,018	276,808	1975	6,826,464	410,311
1966	4,650,078	300,249	1976	7,293,244	432,382
1967	4,965,355	297,164	1977	7,894,697	536,314
1968	4,738,866	283,164	1978	8,026,105	58[illegible],559
1969	4,549,746	282,256	1979	7,294,796	523,758
1970	4,449,211	240,185	1980	4,818,533	327,682
1971	5,081,890	289,946			

SOURCE: U.S. Department of the Treasury, Annual Report, 1962 through 1967 (Washington, D.C.: annually), and Statistical Appendix to Annual Report, 1968 through 1980 (Washington, D.C.: annually): U.S. Treasury Dept., Treasury Bulletin, Sept. 1982.

XXIII. SELECTED SERVICES

The first postwar business census covered the year 1948. Subsequent censuses have been taken twice each decade, with current law authorizing the U.S. Bureau of the Census to conduct canvasses of the nation's industrial and business establishments at five-year intervals covering years ending in 2 and 7. These economic censuses cover construction industries, manufacturing, mining, retail trade, selected services, selected transportation, and wholesale trade.

Each establishment is classified on the basis of its major economic activity. Those primarily engaged in furnishing lodging, or lodging and meals, and camping space or camping facilities, on a fee basis; providing services generally involved in the care of the person or apparel, such as laundries, dry cleaning plants, portrait photographic studios, and beauty and barber shops; rendering services to business establishments on a fee or contract basis; furnishing automotive repair, leasing, and parking and other repair services to the general public; producing, distributing, or exhibiting motion pictures in commercially operated theaters; providing other amusement or entertainment on payment of a fee or admission charge; making dentures and artificial teeth to order for the dental profession; offering legal advice or legal services (providing that the head of the organization or office is a member of the bar); or rendering engineering, architectural, and surveying services were classified in the Census of Selected Services Industries, 1977. The tabulations exclude such establishments that are part of a military post, school, university, and so forth. Many service establishments, such as hospitals, physicians' offices, and educational institutions, are not covered in the Census of Selected Services Industries.

Beginning in 1954, the Census of Selected Service Industries has excluded firms with no paid employees during the census year unless they reported sales of $1,000 or more. Firms with no paid employees were not actually canvassed, their sales figures and kind-of-business classification being obtained from 1972 income tax returns.

Several changes were made in the kind-of-business definitions between 1967 and 1972 with the result that comparability between the two censuses is limited. The kinds of business involving the most significant changes are those in the new computer and data processing services category.

It is customary in an economic census to classify each establishment separately, irrespective of whether it is part of a larger organization.

Receipts reported in the Census of Selected Service Industries do not include receipts incidental to other kinds of business, such as wholesaling or services. They do include total receipts, including accurals, of selected service establishments even though some of these receipts were from selling merchandise, carrying charges, delivering merchandise, and so forth. Trade-in allowances are not deducted, but refunds and allowances for merchandise returned are. Sales and excise taxes are included, but nonoperating income (rental or real estate, interest or dividends on investments, and so forth) is not. Receipts include receipts so defined of all establishments with a sales volume of $1,000 or more at any time during the year, whereas the number of establishments in the Census of Retail Trade excludes those that have gone out of business during the year. The census also includes establishments in operation less than the full year, with reported sales of less than $1,000, if they could have expected reaching the $1,000 cutoff on the basis of year-round operation.

Payroll is as defined by the Internal Revenue Service. It includes wages and salaries, gratuities reported to the employer, commissions, bonuses, vacation and sick leave pay before deducting employee income taxes, Social Security taxes, union dues, and so forth. Payments in kind, such as free restaurant meals, are included.

Employment for the pay period including 12 March 1972 consists of paid employees of corporations and unincorporated businesses, including salaried officers and executives of corporations but excluding proprietors and partners of unincorporated businesses. Employees on paid sick leave or holiday or on paid vacation also are included.

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TABLE XXIII-1. AVERAGE WAGE AND SALARY EMPLOYMENT IN MICHIGAN AND THE UNITED STATES SERVICE ESTABLISHMENTS: 1956-1982

Year	Michigan Employment (000)	United States Employment (000)
1956	234.4	6,497
1957	241.2	6,708
1958	244.6	6,765
1959	244.4	7,087
1960	263.7	7,378
1961	270.8	7,620
1962	286.6	7,982
1963	298.2	8,277
1964	310.5	8,660
1965	326.7	9,036
1966	353.0	9,498
1967	376.8	10,045
1968	385.5	10,567
1969	402.9	11,169
1970	407.8	11,548
1971	420.1	11,797
1972	454.6	12,276
1973	489.0	12,857
1974	510.1	13,441
1975	514.4	13,892
1976	541.2	14,551
1977	580.5	15,303
1978	613.9	16,252
1979	626.8	17,112
1980	644.5	17,890
1981	649.6	18,592
1982	652.7	19,001

SOURCE: Michigan Employment Security Commission Special release, and Bureau of Labor Statistics, Employment and Earnings, Washington, D.C.: Monthly), March 1983, Table B-1.

TABLE XXIII-2. SUMMARY STATISTICS FOR SELECTED SERVICE ESTABLISHMENTS IN MICHIGAN AND THE UNITED STATES: 1947, 1954, 1958, 1963, 1967, 1972, AND 1977

		Establishments with payroll				All establishments[a]	
Year		Number	Receipts ($1,000,000)	Annual Payroll ($1,000,000)	Paid employees[b]	Number	Receipts ($1,000,000)
1947[c]	Michigan	n.a.	n.a.	130	48,315	21,376	367
	U.S.	n.a.	n.a.	4,164	2,011,661	665,475	13,296
1954	Michigan	15,127	9[illegible]5	267	76,449	29,699	1,016
	U.S.	375,149	21,263	6,534	2,361,821	785,589	23,508
1958	Michigan	17,653	1,256	338	93,279	38,521	1,380
	U.S.	442,584	29,001	9,006	2,889,183	975,250	32,376
1963	Michigan	20,188	1,642	424	114,614	44,412	1,793
	U.S.	504,356	41,023	12,192	3,261,514	1,061,673	44,586
1967	Michigan	19,654	2,214	647	139,436	43,214	2,397
	U.S.	521,416	55,527	17,524	3,841,174	1,187,814	60,542
1972[d]	Michigan	20,846	3,223	939	152,205	48,727	3,504
	U.S.	569,928	84,754	27,002	n.a.	1,370,637	92,815
1972[e]	Michigan	24,718	3,446	1,222	186,018	56,080	3,784
	U.S.	683,614	103,237	33,424	5,305,181	1,590,248	112,970
1977[e]	Michigan	24,921	5,882	2,059	218,851	60,550	6,389
	U.S.	725,096	164,219	56,054	6,337,275	1,834,713	179,515

SOURCE: Bureau of the Census, 1977 Census of Service Industries, Geographic Area Series, Michigan (Washington, D.C.: 1980), SC77-A-23, Table 1 and 2; and similar documents for Michigan for 1972, 1967, 1963, 1958, 1954, and 1947; and for the United States.

a. Excludes establishments with no paid employment and with annual receipts less than $1,000.
b. Week including 15 November for 1947-1963; week including 12 March for 1967 and 1972.
c. Unrevised statistics. Based upon reports from establishments with receipts of $500 or more.
d. Based on 1967 Standard Industrial Classification. Excludes dental laboratories, legal services, and architectural, engineering, and land surveying services which are included in the Census of Selected Service Industries, 1972.
e. Based on 1972 Standard Industrial Classification. Includes dental laboratories, legal services, and architectural, engineering, and land surveying services which were excluded in the Census of Business, 1967, Selected Services.
n.a.: not available.

TABLE XXIII-3. RANKING OF MICHIGAN COUNTIES ACCORDING TO EA CE INDUSTRY ESTABLISHMENTS AS A P OF T PROPRIETORS' EARNINGS: 198

	Percentage				
County	1971	1981	Cou		
Emmet	26.54	35.48	Macoml		[illegible]
Crawford	20.37	31.10	Eaton		12.92
Leelanau	20.18	29.09	Delta		12.90
Oakland	17.66	24.55	Ottawa	12.45	12.81
Grand Traverse	19.31	22.89	Saginaw	10.62	12.55
Keweenaw	8.79	21.85	Mason	9.37	12.26
Gogebic	16.53	21.75	Montcalm	9.84	12.07
Clare	13.63	19.70	Monroe	12.49	12.05
Mackinac	20.45	19.32	Mecosta	8.03	11.95
Wexford	15.68	18.77	Iron	(D)	11.87
Kalamazoo	14.01	18.10	Sanilac	9.43	11.66
Baraga	9.57	18.07	Van Buren	10.76	11.61
Lake	35.03	17.43	Alpena	9.08	11.44
Otsego	16.01	17.33	Cass	8.62	11.40
Houghton	15.42	16.85	Cheboygan	14.40	11.19
Wayne	13.50	16.42	Genesee	8.99	10.94
Kent	15.03	16.42	Midland	9.33	10.83
Washtenaw	10.54	16.33	Lapeer	9.88	10.75
Bay	14.23	16.19	Dickinson	(D)	10.53
Arenac	12.69	15.96	Allegan	10.38	10.45
Gratiot	14.51	15.85	Hillsdale	8.84	10.28
Benzie	(D)	15.70	Clinton	10.45	10.21
Livingston	13.06	15.16	Alger	10.87	9.62
Gladwin	14.39	15.02	Tuscola	9.64	9.56
Ingham	12.01	15.02	Schoolcraft	12.66	9.37
Lenawee	11.30	14.78	Manistee	7.83	9.00
Chippewa	7.58	14.61	Iosco	6.20	8.94
Muskegon	12.07	14.46	Missaukee	11.85	8.52
Berrien	10.85	14.42	Montmorency	5.40	8.43
Oscoda	12.85	14.37	Ionia	8.92	8.38
Ogemaw	12.70	13.99	Branch	7.31	7.65
St. Clair	13.23	13.98	St. Joseph	7.33	7.65
Alcona	13.70	13.86	Menominee	10.23	7.41
Isabella	15.09	13.72	Kalkaska	7.66	6.02
Shiawassee	11.86	13.71	Jackson	14.24	(D)
Calhoun	12.29	13.70	Luce	(D)	(D)
Newaygo	12.20	13.51	Marquette	11.38	(D)
Charlevoix	16.93	13.48	Ontonagon	3.63	(D)
Roscommon	12.66	13.38	Osceola	6.95	(D)
Antrim	(D)	13.37	Presque Isle	(D)	(D)
Oceana	12.52	13.24			
Huron	11.55	13.17	Michigan	12.83	16.15
Barry	10.84	13.06	United States	15.57	18.10

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D) Withheld to avoid disclosing data for individual companies.

TABLE XXIII-4. RANKING OF MICHIGAN COUNTIES ACCORDING TO PERCENTAGE CHANGE IN LABOR AND PROPRIETORS' EARNINGS IN SERVICE INDUSTRY ESTABLISHMENTS: 1980-1981

County	Percentage change 1971-1981	Percentage change 1980-1981	County	Percentage change 1971-1981	Percentage change 1980-1981
Kalkaska	483	26	Tuscola	151	8
Arenac	225	22	Van Buren	158	8
Alcona	138	19	Calhoun	142	8
St. Joseph	146	18	Lenawee	155	8
Clinton	161	18	Charlevoix	121	8
Menominee	91	17	Branch	154	7
Oscoda	140	17	Delta	146	7
Isabella	175	17	Saginaw	174	7
Gogebic	147	15	Wayne	129	7
Gladwin	171	15	Genesee	195	7
Crawford	326	15	Ottawa	196	7
Mason	147	14	Hillsdale	174	7
Washtenaw	353	13	Clare	257	6
Dickinson	(D)	13	Mackinac	136	6
Iron	(D)	13	Alpena	185	6
Huron	174	13	St. Clair	155	6
Livingston	257	13	Eaton	183	6
Bay	162	13	Berrien	163	6
Barry	172	13	Manistee	171	6
Emmet	223	12	Ionia	148	5
Oakland	306	12	Shiawassee	135	5
Muskegon	175	11	Keweenaw	158	5
Newaygo	135	11	Macomb	249	5
Leelanau	202	11	Ogemaw	231	5
Allegan	160	11	Oceana	161	4
Roscommon	191	11	Alger	102	2
Kalamazoo	240	11	Missaukee	89	1
Cass	209	11	Montmorency	184	-1
Benzie	(D)	10	Antrim	(D)	-2
Houghton	163	10	Baraga	281	-8
Kent	193	10	Lake	-24	-9
Lapeer	167	10	Monroe	157	-11
Midland	196	10	Cheboygan	94	-25
Grand Traverse	279	10	Jackson	(D)	(D)
Chippewa	208	9	Luce	(D)	(D)
Wexford	236	9	Marquette	(D)	(D)
Sanilac	151	9	Ontonagon	(D)	(D)
Gratiot	158	9	Osceola	(D)	(D)
Mecosta	296	9	Presque Isle	(D)	(D)
Ingham	228	9	Schoolcraft	81	(D)
Montcalm	202	9			
Otsego	305	8	Michigan	188	9
Iosco	180	8	United States	199	13

SOURCE: Bureau of Economic Analysis, Regional Economics Information System.

(D) Withheld to avoid disclosing data for individual companies.

XXIV. INTERNATIONAL TRADE

The first Survey of the Origin of Exports by Manufacturing Establishments was organized in response to public and congressional requests for information on the geographic source of manufactured goods sold to customers in other countries. The survey has been repeated at three-year intervals since the first one, for 1960, was completed.

The Bureau of the Census sends copies of the reporting form to more than 20,000 manufacturing establishments with 100 or more employees. Establishments with exports valued at $25,000 or more, f.o.b. plant, are asked to report their exports. These replies are the basis for the geographic allocation of reported export shipments by the manufacturers themselves.

Estimated values of exports, f.o.b. producing plant, for each state or Standard Metropolitan Statistical Area represent the sum of reported exports and exports unknown to the manufacturer; for example, exports handled through a wholesaler. The latter figures are calculated on the basis of the geographical distribution of total manufacturing employment, since there is no survey of middlemen to make that determination.

Other foreign trade statistics are compiled by the Bureau of Customs, U.S. Department of Commerce. These figures represent the flow through Michigan and other states.

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TABLE XXIV-1. VALUE OF EXPORT SHIPMENTS BY MANUFACTURING PLANTS IN MICHIGAN AND THE UNITED STATES, BY INDUSTRY GROUP, F.O.B. PRODUCING PLANT: 1971, 1972, 1977, AND 1980

(In millions of dollars)

Industry group	Michigan				United States			
	1971	1972	1977	1980	1971	1972	1977	1980
Food and kindred products	59.7	61.1	153.4	153.2	2,715.8	3,046,2	6,782.2	11,199.6
Apparel, other textile prdcts.	n.a.	n.a.	78.7	174.5	n.a.	n.a.	756.6	3,983.1
Chemicals and allied products	122.5	180.3	404.5	517.2	3,519.7	3,756.8	9,466.1	18,840.5
Paper & allied products	20.1	16.8	29.3	31.4	949.8	988.4	2,099.5	4,036.7
Rubber and plastics products	15.1	35.3	62.1	76.9	452.3	519.3	1,410.8	2,437.2
Stone, clay, and glass products	35.9	48.9	75.9	101.9	337.5	408.7	997.0	1,654.1
Primary metal industries	111.8	126.1	196.4	262.3	1,435.6	1,490.2	2,791.6	10,998.5
Fabricated metal products[a]	244.1	312.2	514.3	701.2	1,296.6	1,429.3	4,125.2	6,229.5
Nonelectrical machinery	459.1	464.2	985.5	1,698.1	7,061.4	7,823.6	19,142.1	34,081.0
Electrical equipment and supplies	103.4	131.2	188.3	254.9	2,714.8	3,295.8	8,060.9	14,671.6
Transportation equipment[b]	1,529.9	1,736.1	4,107.1	4,561.5	7,571.2	7,841.7	17,711.9	27,664.6
Instruments and related products	(c)	27.8	63.4	152.1	1,343.1	1,530.9	4,235.1	7,213.0
All other	132.4[d]	382.4	78.5	130.9	3,694.5	4,477.1	8,216.9	12,094.0
TOTAL	2,834.0	3,522.2	6,937.4	8,816.9	33,132.3	36,608.0	85,795.9	155,103.3

SOURCE: Bureau of the Census, Current Industrial Reports, Series MA161, 1971 and 1972 (Washington, D.C.: periodically), Table 2; and 1977 Census of Manufacturers, Origin of Exports of Manufactured Products (Washington, D.C.: 1981), Subject Series MC77-SR-12, and 1980 (AS)-6 for 1980 data.

a. Definition expanded in 1967 to include captive automotive stampings plants of motor vehicle manufacturers.

b. Definition contracted in 1967 to exclude captive automotive stampings plants of motor vehicle manufacturers.

c. $25 million to $50 million.

d. Includes instruments and related products.

TABLE XXIV-3. VALUE OF IMPORTS AND EXPORTS PASSED THROUGH THE DETROIT CUSTOMS DISTRICT AND THE UNITED STATES, VESSEL AND AIR SHIPMENTS AND TOTAL: 1972-1981

(In millions of dollars)

	Total		Vessel		Air	
Year	Detroit	United States	Detroit	United States	Detroit	United States
			General imports			
1972	5,901.4	55,582.8	495.2	33,665.6	56.8	5,194.4
1973	6,829.5	69,475.7	465.2	42,601.7	72.9	6,929.7
1974[a]	8,466.1	100,972.3	504.4	67,165.2	87.8	8,921.7
1975[a]	8,205.1	96,104.4	470.2	63,224.3	70.6	8,841.9
1976[a]	10,280.5	120,677.4	705.0	80,758.7	74.7	10,847.0
1977[a]	11,483.1	146,816.7	999.8	100,854.2	72.6	12,491.4
1978	12,728.1	173,249.9	805.4	115,499.0	81.0	17,923.1
1979	13,748.8	207,131.1	881.5	140,924.1	110.2	22,168.7
1980	12,721.6	240,834.3	628.6	165,147.5	136.3	28,044.2
1981	15,334.8	261,304.9	878.9	177,585.6	138.0	29,968.2
		Exports of domestic and foreign merchandise				
1972	5,848.2	49,778.2	141.0	25,758.0	94.2	7,516.0
1973	7,036.5	71,338.8	195.6	39,853.8	161.1	10,303.6
1974[a]	8,707.3	98,507.2	226.9	55,904.8	198.6	13,781.2
1975[a]	9,751.1	107,651.8	249.4	61,801.1	167.5	14,554.6
1976[a]	10,889.1	114,997.2	283.9	64,868.8	184.1	16,905.5
1977[a]	12,115.5	120,163.2	354.2	65,596.5	212.1	19,660.3
1978	13,366.2	143,662.7	578.1	77,530.8	229.7	25,896.7
1979	14,210.1	181,801.6	789.0	97,788.4	171.3	36,660.6
1980	14,633.9	220,704.9	785.1	119,085.8	181.4	45,405.0
1981	17,111.4	233,739.1	601.4	123,771.3	159.1	46,390.9

SOURCE: Bureau of the Census, Highlights of U.S. Export and Import Trade, (Washington, D.C.: monthly), Tables I-15 and E-4.

a. Transaction value of imports at the foreign port of exportation, including costs to place it alongside the ship, or f.a.s. (free alongside ship) value. For prior years the figures and customs values, which generally represented the value in the foreign country for collection of import duties.

TABLE XXIV-4. WEIGHT OF WATERBORNE IMPORTS AND EXPORTS PASSED THROUGH THE DETROIT CUSTOMS DISTRICT BY PORT: 1976-1980

(Shipping weights in millions of pounds)

Port	Imports					Exports				
	1976	1977	1978	1979	1980	1976	1977	1978	1979	1980
Detroit	9,986	10,225	5,903	5,567	2,491	902	881	1,410	1,422	1,337
Port Huron	504	748	637	952	641	10	12	648	751	707
Sault Ste. Marie	37	52	35	42	3	440	637	608	439	505
Saginaw-Bay City	437	496	313	540	640	438	443	721	962	693
Muskegon	133	113	135	39	158	8	31	12	0	0
Grand Haven	94	52	102	69	159	9	0	0	0	0
Rogers City	34	0	32	0	48	1,386	1,868	2,587	2,425	2,038
Detour	1	29	56	0	0	901	735	797	1,176	583
Escanaba	0	0	57	2	3	958	396	787	689	176
Marquette	n.a.	n.a.	n.a.	n.a.	5	0	0	0	0	0
Presque Isle	0	29	0	0	0	2,366	1,854	2,773	4,447	7,482
Alpena	216	58	27	45	32	3,302	3,007	2,259	3,523	1,779
Ferrysburg	39	38	7	119	38	0	0	0	0	0
TOTAL	11,481	11,840	7,298	7,378	4,218	10,717	9,864	12,601	15,833	15,319

SOURCE: Bureau of the Census, Waterborne Exports and General Imports, (Washington, D.C.: annual), Tables I-1 and E-1.

XXV. OTHER ENTERPRISE STATISTICS

This chapter includes material that cannot easily be categorized within the other chapters relating to business in Michigan. Statistics on patents and on research and development activities of business are collected and published by various agencies of the federal government.

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TABLE XXV-1. NUMBER, BUSINESS RECEIPTS, PAYROLLS, DEPRECIATION, AND NET PROFITS OF NONFARM PROPRIETORSHIPS IN MICHIGAN AND THE UNITED STATES: 1965-1980

Year	Number	Thousands of dollars Business receipts	Payrolls	Depreciation	Net profit
		Michigan			
1965	229,649	6,720,734	792,371	181,681	1,130,182
1966	215,769	7,632,329	865,609	193,124	1,160,758
1967	214,644	8,221,935	996,612	191,016	1,264,783
1968	219,172	8,203,156	1,038,499	209,713	1,318,421
1969	229,493	8,261,634	1,007,738	n.a.	1,325,899
1970	221,780	7,953,693	939,301	n.a.	1,232,920
1971	241,718	8,245,805	955,840	n.a.	1,240,018
1972	246,562	8,748,695	1,018,386	239,825	1,372,904
1973	257,408	9,362,591	1,114,025	274,870	1,542,548
1974	261,798	9,893,119	1,076,543	288,916	1,458,146
1975	264,716	9,892,274	1,090,173	303,934	1,418,023
1976	275,597	10,392,873	1,087,828	317,160	1,503,054
1977	280,050	11,423,835	1,187,609	n.a.	1,738,164
1978	287,457	12,311,968	1,289,306	n.a.	1,917,956
1978[a]	358,584	13,497,783	1,382,261	n.a.	1,931,675
1979[a]	391,562	14,576,572	1,398,430	722,638	1,904,486
1980[a]	398,585	15,875,127	1,273,803	723,459	1,840,114
		United States			
1965	5,855,257	167,032,214	19,251,839	4,348,078	24,145,658
1966	5,901,571	171,643,054	19,653,340	4,481,983	25,504,318
1967	5,925,935	175,660,827	20,138,994	4,677,045	26,621,637
1968	5,998,610	184,617,439	21,229,554	4,779,256	28,299,606
1969	6,155,374	193,894,487	22,364,904	n.a.	29,739,427
1970	6,313,259	195,792,289	22,362,930	n.a.	30,022,920
1971	6,612,225	211,193,510	23,513,831	n.a.	31,516,479
1972	6,957,436	224,128,730	24,466,884	6,071,144	33,911,098
1973	7,445,153	248,785,404	26,924,663	6,862,388	38,058,018
1974	7,688,795	264,802,830	27,391,496	7,470,131	38,980,898
1975	7,759,576	273,954,741	29,018,942	7,958,143	39,636,453
1976	8,139,962	301,446,844	31,494,376	8,536,390	44,424,787
1977	8,413,806	324,492,975	32,533,568	9,541,552	49,436,518
1978	8,908,289	361,630,253	36,605,195	10,998,879	53,481,341
1978[a]	12,017,953	443,354,851	40,576,849	21,206,674	59,027,286
1979[a]	12,329,982	487,807,384	42,366,149	24,170,602	60,758,789
1980[a]	12,701,597	505,884,882	41,985,964	25,796,183	55,449,987

SOURCE: Internal Revenue Service, Statistics of Income, Business Income Tax Returns, Sole Proprietorships and Partnerships, (Washington, D.C.: annually), Table 4 and 12.

a. Includes agriculture. State data on nonfarm proprietorships no longer are listed as a separate item.

n.a.: not available.

TABLE XXV-2. NUMBER, BUSINESS RECEIPTS, PAYROLLS, DEPRECIATION, AND NET PROFITS OF PARTNERSHIPS IN MICHIGAN AND THE UNITED STATES: 1965-1979

		Thousands of dollars			
Year	Number	Business receipts	Payrolls	Depreciation	Net profit
			Michigan		
1965	30,763	2,989,223	384,357	75,163	406,845
1966	31,662	2,953,941	380,274	98,563	402,722
1967	30,935	2,953,666	411,458	95,772	419,930
1968	31,721	3,065,198	410,656	111,077	447,845
1969	31,374	3,204,384	411,487	n.a.	396,754
1970	31,859	2,802,157	354,031	n.a.	252,589
1971	n.a.	n.a.	n.a.	n.a.	n.a.
1972	33,413	3,269,015	370,382	192,886	273,833
1973	34,408	3,856,285	455,088	241,160	298,961
1974	36,592	4,302,715	490,288	266,340	249,977
1975	35,537	4,289,002	476,074	324,096	253,272
1976	36,013	4,285,667	459,319	326,919	257,583
1977	37,959	4,702,704	497,388	n.a.	363,565
1978	40,252	5,921,623	625,154	n.a.	425,555
1978[a]	42,042	6,211,342	646,204	n.a.	460,884
1979[a]	42,590	6,978,504	727,995	587,193	589,339
			United States		
1965	786,558	68,595,859	9,384,714	2,162,066	9,027,981
1966	796,116	72,808,301	9,805,683	2,361,243	9,656,194
1967	780,885	72,515,107	10,169,459	2,599,921	10,216,025
1968	795,495	75,213,174	10,617,664	2,903,298	10,756,354
1969	800,391	80,009,120	11,148,745	n.a.	9,788,097
1970	811,845	82,982,213	11,558,441	n.a.	9,122,597
1971	n.a.	n.a.	n.a.	n.a.	n.a.
1972	876,150	95,435,014	12,587,899	5,296,742	8,889,094
1973	915,994	109,476,011	13,595,004	6,382,308	7,929,218
1974	952,175	125,780,194	14,961,016	7,785,440	7,973,323
1975	964,052	134,511,262	16,179,238	9,197,292	7,000,900
1976	974,763	144,822,904	17,840,359	9,889,016	9,450,489
1977	1,048,676	164,926,675	19,041,205	11,296,382	12,867,895
1978	1,125,776	197,114,117	21,241,964	13,281,912	13,347,071
1978[a]	1,234,799	214,912,044	22,272,361	14,519,760	14,418,042
1979[a]	1,299,593	253,000,742	26,092,084	17,662,667	15,205,908

SOURCE: Internal Revenue Service, *Tax Returns*, (Washington, D.C.: annually), Table 2.4.

a. Includes agriculture. State data on nonfarm proprietors no longer are listed as a seperate item.

n.a.: not available.

TABLE XXV-3. NUMBER OF FRANCHISE ESTABLISHMENTS IN MICHIGAN AND THE UNITED STATES, BY TYPE OF BUSINESS: 1977, 1978, AND 1979

Kind of business	Year	Michigan			United States		
		Company owned	Franchisee owned	Total	Company owned	Franchisee owned	Total
Convenience stores	1977	118	136	254	9,067	4,846	13,913
	1978	191	106	297	9,471	4,604	14,075
	1979	221	111	332	9,838	4,668	14,506
Fast food restaurants	1977	611	1,337	1,948	12,932	31,857	44,789
	1978[a]	506	1,602	2,108	13,993	35,170	49,163
	1979	661	1,706	2,367	14,885	38,214	53,099
Retailing (nonfood)	1977	241	806	1,047	8,104	27,876	35,980
	1978	269	590	859	8,829	21,445	30,284
	1979	269	520	789	9,026	20,892	29,918
Hotels and motels	1977	25	84	109	913	3,985	4,898
	1978	26	105	131	978	4,139	5,117
	1979	31	87	118	1,243	4,017	5,260
Campgrounds	1977	0	31	31	18	960	978
	1978	0	28	28	18	949	967
	1979	0	33	33	16	912	928
Employment services	1977	18	85	103	n.a.	n.a.	n.a.
	1978	20	92	112	910	2,820	3,730
	1979	24	102	126	993	2,913	3,906
Printing and copying services	1977	11	79	90	127	1,706	1,833
	1978	11	115	126	128	2,181	2,309
	1979	0	114	114	88	2,448	2,536
Real estate	1977	36	462	498	115	9,622	9,737
	1978	40	729	769	162	13,863	14,025
	1979	32	842	874	189	17,575	17,764

SOURCE: U.S. Department of Commerce, Industry and Trade Administration, *Franchising in the Economy, 1978-1980* (Washington, D.C.: 1981), Tables 33, 36, 41, 50, 58, 60, 62, 77, and 80; and similar documents for previous years.

a. 1978 and figures are restaurants (all types).

n.a.: not available.

TABLE XXV-4. EXPENDITURES FOR INDUSTRIAL RESEARCH AND DEVELOPMENT IN MICHIGAN AND THE UNITED STATES, BY SOURCE OF FUNDING: 1963-1977 AND 1979

(In millions of dollars)

Date	Federal funds		Mich. as a % of U.S.	Company funds		Mich. as a % of U.S.
	Michigan	United States		Michigan	United States	
1963	65	7,270	.89	797	5,360	14.87
1964	65	7,600	.85	835	5,753	14.51
1965	67	7,740	.86	895	6,445	13.89
1966	98	8,287	1.18	977	7,254	13.47
1967	115	8,388	1.39	952	8,032	11.85
1968	98	8,559	1.14	1,086	8,876	12.23
1969	83	8,619	.96	1,228	9,856	12.46
1970	77	7,785	.99	1,171	10,073	11.62
1971	78	7,671	1.02	1,338	10,643	12.57
1972	86	8,090	1.06	1,500	11,347	13.22
1973	56	8,222	.68	1,832	12,699	14.43
1974	78	8,332	.94	1,990	14,038	14.18
1975	114	8,765	1.30	1,858	14,776	12.57
1976	124	9,285	1.33	2,248	17,391	12.93
1977	144	10,545	1.37	2,614	19,362	13.50
1979	n.a.	12,460	n.a.	3,589[a]	25,493	n.a.

SOURCE: National Science Foundation, *Research and Development in Industry*, 1966 through 1975 (Washington, D.C.: annually), NS76-322, Table B-23 (1977), and National Science Foundation, *Basic Research, Applied Research, and Development in Industry, 1964* (Washington, D.C.: 1966), NS66-28, Table 26; and special release.

NOTE: The bulk of expenditures for industrial research and development are for development and made by manufacturing industries.

a. Includes federal funds.

n.a.: not available.

TABLE XXV-5. NEW INCORPORATIONS IN MICHIGAN: 1963-1981

Year	Profit	Nonprofit	Foreign (out of state)	Total
1963	5,102	1,241	528	6,871
1964	5,825	1,256	593	7,674
1965	6,152	1,286	627	8,065
1966	6,315	1,356	640	8,311
1967	6,341	1,361	715	8,417
1968	7,700	1,588	825	10,113
1969	9,586	1,767	1,064	12,417
1970	8,378	1,782	1,054	11,214
1971	8,270	1,993	1,082	11,345
1972	9,202	2,134	1,175	12,511
1973	9,709	1,878	1,093	12,680
1974	9,342	2,106	1,009	12,457
1975	9,996	2,138	926	13,060
1976	11,545	2,080	972	14,597
1977	13,273	2,082	956	16,311
1978	14,538	2,148	1,039	17,725
1979	18,654	2,217	1,062	21,933
1980	16,931	2,503	1,077	20,511
1981	17,139	2,288	1,277	20,704

SOURCE: Michigan Department of Management and Budget, Economic Report of the Governor, 1982 (Lansing: 1982), Table C-18.

TABLE XXV-6. U.S. PATENTS ISSUED TO RESIDENTS OF MICHIGAN AND THE UNITED STATES: 1966-1981

Year	Michigan	United States	Year	Michigan	United States
1966	3,675	57,700	1974	3,215	57,812
1967	3,306	54,191	1975	2,832	49,494
1968	2,968	48,804	1976	2,691	51,808
1969	3,160	53,422	T.Q.	621	11,368
1970	2,831	49,821	1977	2,474	47,292
1971	3,386	58,693	1978	2,373	44,482
1972	3,156	54,093	1979	1,875	34,383
1973	3,091	54,690	1980	2,130	38,134
			1981	2,457	43,194

SOURCE: Patent and Trademark Office, Commissioner of Patents and Trademarks, Annual Report, Fiscal Year: 1981 (Washington, D.C.: 1982), Table 13.

NOTE: 1966-1973 are calendar years and do not include reissues; 1974-1975 are fiscal years and include reissues. T..Q. = transitionary quarter, 1 July 1976 - 30 September 1976.

TABLE XXV-7. NUMBER OF SMALL BUSINESSES IN MICHIGAN BY COUNTY: 1972 AND 1977

County	1972	1977	County	1972	1977
Alcona	185	243	Lake	162	203
Alger	217	289	Lapeer	770	1,041
Allegan	1,276	1,469	Leelanau	283	421
Alpena	716	918	Lenawee	1,760	1,926
Antrim	325	472	Livingston	990	1,498
Arenac	292	360	Luce	153	193
Baraga	193	235	Mackinac	349	435
Barry	656	667	Monroe	8,514	12,523
Bay	2,149	2,336	Manistee	520	614
Benzie	272	359	Marquette	1,069	1,395
Berrien	3,393	3,883	Mason	532	620
Branch	736	886	Mecosta	504	678
Calhoun	2,676	2,744	Menominee	551	615
Cass	679	770	Midland	975	1,283
Charlevoix	456	624	Missaukee	173	205
Cheboygan	501	725	Monroe	1,682	1,859
Chippewa	725	836	Montcalm	863	958
Clare	454	599	Montmorency	196	261
Clinton	749	927	Muskegon	2,607	2,881
Crawford	201	269	Newaygo	564	602
Delta	833	968	Oakland	17,247	26,765
Dickinson	641	740	Oceana	377	478
Eaton	1,142	1,463	Ogemaw	332	449
Emmet	641	894	Ontonagon	233	273
Genesee	6,492	7,398	Osceola	345	439
Gladwin	274	367	Oscoda	154	186
Gogebic	517	575	Otsego	345	544
Grand Traverse	1,169	1,770	Ottawa	2,262	3,024
Gratiot	825	874	Presque Isle	298	350
Hillsdale	796	839	Roscommon	522	661
Houghton	722	845	Saginaw	3,552	4,201
Huron	855	1,063	St. Clair	2,287	2,555
Ingham	4,507	5,311	St. Joseph	1,114	1,218
Ionia	857	911	Sanilac	809	971
Iosco	611	762	Schoolcraft	251	295
Iron	386	462	Shiawassee	1,135	1,248
Isabella	720	904	Tuscola	886	1,094
Jackson	2,695	2,870	Van Buren	1,069	1,261
Kalamazoo	3,591	4,444	Washtenaw	4,033	5,368
Kalkaska	150	247	Wayne	41,605	36,889
Kent	8,175	9,548	Wexford	501	698
Keweenaw	61	71	MICHIGAN	157,439	182,115

SOURCE: Bureau of the Census, 1977 Census of Selected Service Industries, Geographic Area Series, Michigan, (Washington, D.C.: 1979), SC77-A-23, Table 5; 1977 Census of Retail Trade, Area Series, Michigan (Washington, D.C.: 1979), RC77-A-23, Table 7; and similar documents for 1972.

Note: Small businesses is here defined as establishments in the private sector with 1-19 employees, and partnerships and proprietorships with no employees.

APPENDIX

The concept of the "standard metropolitan statistical area" has been developed to meet the need for the presentation of statistics. The following excerpts from the U.S. Census of Population: 1960 and U.S. Census of Population: 1970 describe the purpose of the SMSAs.

"It has long been recognized that for many types of social and economic analysis it is necessary to consider as a unit the entire population in and around the city whose activities form an integrated social and economic system.... To permit all Federal statistical agencies to utilize the same areas for the publication of general-purpose statistics, the Office of Management and Budget has established 'standard metropolitan statistical areas' (SMSAs)."

"Except in New England, an SMSA is a county or group of contiguous counties which contains at least one city of 50,000 inhabitants or more or 'twin cities' with a combined population of at least 50,000. In addition to the county, or counties, containing such a city or cities, contiguous counties are included in an SMSA if, according to a certain criteria, they are essentially metropolitan in character and are socially and economically integrated with the central city."

"The Bureau of the Census recognizes 243 Standard Metropolitan Statistical Areas (SMSAs) in the United States and four in Puerto Rico, making a total of 247 in the 1970 census. These include the 231 SMSAs as defined and named in the Bureau of the Budget publication, Standard Metropolitan Statistical Areas: 1967, U.S. Government Printing Office, Washington, D.C. 20402. Since 1967, 16 SMSAs have been added, of which two were defined in January 1968 and an additional 14 were defined in February 1971 on the basis of the 1970 census.

Users of this statistical abstract will find that certain tables pertain to areas in Michigan which are SMSAs.

Michigan's Standard Metropolitan Statistical Areas for 1940, 1950, 1967, 1971, and 1973 were composed as follows:

MICHIGAN SMSAs, COUNTIES INCLUDED

SMSA	1940[a]	1950	1967	1971	1973
Ann Arbor-Ypsilanti			Washtenaw	Washtenaw	Washtenaw
Battle Creek				Calhoun	Calhoun Barry
Bay City[b]		Bay	Bay	Bay	Bay
Detroit	Macomb Oakland Wayne	Macomb oakland Wayne	Macomb Oakland Wayne	Macomb Oakland Wayne	Lapeer Livingston Macomb Oakland St. Clair Wayne
Flint	Genesee	Genesee	Genesee	Genesee Lapeer	Genesee Shiawassee
Grand Rapids	Kent	Kent	Kent	Kent Ottawa	Kent Ottawa
Jackson		Jackson	Jackson	Jackson	Jackson
Kalamazoo-Portage	Kalamazoo	Kalamazoo	Kalamazoo	Kalamazoo	Kalamazoo Van Buren
Lansing-East Lansing	Ingham	Ingham	Ingham Clinton Eaton	Ingham Clinton Eaton	Ingham Ionia Clinton Eaton
Muskegon-Norton Shores-Muskegon Heights			Muskegon	Muskegon	Muskegon
Saginaw[b]	Saginaw	Saginaw	Saginaw	Saginaw	Saginaw

SOURCE: U.S. Bureau of the Census, U.S. Census of Population: 1950, 1960 and 1970; Bureau of the Budget, Metropolitan Statistical Areas.

NOTE: Because of changes in designation of individual areas from Metropolitan Areas in 1940 to Standard Metropolitan Areas (SMSAs) for the 1950 census, to Standard Metropolitan Statistical Areas for the 1960 census, and changes in the SMSAs since 1960, the census data presented by SMSAs are not comparable.

a. The designation was changed from Metropolitan Area to Standard Metropolitan Area just prior to the 1950 census. It finally was standardized as Standard Metropolitan Statistical Area in 1959.

b. Saginaw and Bay City were classified in the 1940 census as the Metropolitan Area of Saginaw-Bay City which was composed of Bay and Saginaw counties.

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TABLE XXIV-2. FACTORY SHIPMENTS AND EMPLOYMENT RELATED TO MANUFACTURED EXPORTS, BY MAJOR INDUSTRY GROUP, MICHIGAN AND THE UNITED STATES: 1980

Industry group or products	Value of MI mfg. shipments (Millions of dollars)			Percentage[a]		MI mfg. employment (thousands)			Percentage[b]	
	Direct exports	Supporting exports	Total exports	Michigan	United States	Direct exports	Supporting exports	Total exports	Michigan	United States
Food and kindred	153.2	128.3	281.5	3.9	6.1	.7	.8	1.5	3.3	4.8
Textile mill	8.1	8.4	16.5	10.9	11.9	.1	.2	.3	9.9	10.8
Apparel, other textile	166.4	395.9	562.3	41.9	10.8	1.9	5.0	6.9	37.0	8.0
Lumber and wood	9.6	52.1	61.7	9.0	13.1	.1	1.1	1.2	8.5	10.3
Furniture and fixtures	42.3	13.5	55.8	3.3	2.6	.4	.2	.6	2.6	2.4
Paper products	31.4	192.9	224.3	8.7	12.7	.2	1.7	1.9	8.4	11.2
Printing and publishing	34.0	24.1	58.1	3.0	2.8	.4	.5	.9	2.3	2.2
Chemical and allied	517.2	304.3	821.5	18.5	20.6	3.7	2.3	6.0	19.3	18.6
Petroleum and coal	17.6	43.4	61.0	4.3	4.3	(Z)	.1	.1	4.9	4.9
Rubber, misc. plastic	76.9	113.5	190.4	12.7	12.6	.7	1.9	2.6	10.1	12.0
Leather and leather products	8.2	3.9	12.1	6.9	6.4	(Z)	(Z)	(Z)	(Z)	3.6
Stone, clay, glass	101.9	75.1	177.0	11.1	8.4	1.2	.8	2.0	11.1	8.3
Primary metal	262.3	1,108.0	1,370.3	19.9	23.7	2.4	11.1	13.5	19.6	21.5
Fabricated metal	701.2	949.2	1,650.4	18.7	12.5	8.5	12.6	21.1	17.7	12.5
Machinery, exc.electric	1,698.1	749.0	2,447.1	20.3	24.0	16.2	10.5	26.7	17.4	21.7
Electric, electronic equipment	254.9	111.5	366.4	14.4	17.0	3.1	1.8	4.9	14.0	17.5
Transportation equip.	4,561.5	1,039.2	5,600.7	15.3	18.4	32.9	7.2	40.1	15.9	17.9
Instruments and related	152.1	25.3	177.4	21.7	18.4	2.1	.4	2.5	19.6	18.8
Misc. mfg. industries	19.2	100.7	119.9	23.0	28.7	.2	2.1	2.3	21.6	25.6
Admin. & auxiliary	(X)	(X)	(X)	(X)	(X)	(X)	22.3	22.3	17.6	14.2
Total	8,816.9	5,438.4	14,255.3	15.3	14.1	75.6	82.5	158.1	15.5	13.7

SOURCE: U.S. Department of Commerce, Bureau of the Census, 1980 Annual Survey of Manufactures Origin of Export of Manufactured Products 1980 (AS)-6, Tables 5 and 4a.

a. Total export related shipments as a percentage of total manufacturers' shipments.

b. Total export related employment as a percentage of total manufacturing employment.

(Z). Less than one-half of the unit of measurement shown.

(X): not applicable.

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